TURKISH SOCIETY OF HEMATOLOGY

40TH ANNIVERSARY

Contents - Abstracts

ACUTE LYMPHOBLASTIC LEUKEMIA (103-106)

Ref. No: 8 Abstract No:1

THALASSEMIA MINOR AS ONE OF RISK FACTORS FOR CHILDHOOD LEUKEMIA

[1]Masood Bazrgar, [2]Mehran Karimi, [2]Masoumeh Talebi, [2]Mahin Farahmand Beigi

[1]Human Genetic Research Group, Iranian Academic Center For Education, Culture & Research (acecr), Fars Province Branch, Shiraz, Iran, [2]Hematology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran.

Ref. No: 13 Abstract No:2

LATE EXTRAMEDULLARY RELAPSES OF ACUTE LEUKEMIA

[1]Nesrin Karabul, [1]Salmai Turial, [1]Peter Gutjahr

[1]Childrens Hospital of University Mainz, Department of Pediatric Oncology, Germany [2]Childrens Hospital of University Mainz, Department of Pediatric Surgery, Germany

Ref. No: 83 Abstract No: 3

RESULTS OF HYPERFRACTIONATED CYCLOPHOSPHAMIDE, VINCRISTINE, DOXORUBICIN, AND DEXAMETHASONE (HYPER-CVAD) IN ADULT ACUTE LYMPHOBLASTIC LEUKEMIA: SINGLE CENTER EXPERIENCE

İnci Alacacıoğlu, Nurhilal Turgut, Fatih Demirkan, Mehmet Ali Özcan, Özden Pişkin, Güner Hayri Özsan, Selda Ceneli, Bülent Ündar

Dokuz Eylul University Faculty Of Medicine Department of Hematology, Izmir, Turkey

Ref. No: 86 Abstract No: 4

METHOTREXATE INDUCED NEUROTOXICITY DURING HYPER CVAD TREATMENT IN A PATIENT WITH ALL

Düzgün Özatlı, Nil Güler, Nevzat Selim, Mehmet Turgut

Ondokuz Mayis University, Samsun, Turkey

Ref. No: 104 Abstract No: 5

METHOTREXATE INDUCED NEUROTOXICITY DURING HYPER CVAD TREATMENT IN A PATIENT WITH ALL

Düzgün Özatlı, Nil Güler, Nevzat Selim, Nazir Yayla

Ondokuz Mayis University, Samsun, Turkey

Ref. No: 123 Abstract No: 6

RESEARCHING THE EFFECT OF ANTHRACYCLINE CARDIOTOXICITY TO SYSTOLIC AND DIASTOLIC FUNCTIONS OF HEART WITH ECHOCARDIOGRAPHY

Belgin Aktaş, Kazım Öztarhan, Gönül Aydoğan, Zafer Şalcıoğlu, Ferhan Akıcı

Bakirkoy Maternity and Children Hospital, Istanbul Turkey

Ref. No: 125 Abstract No: 7

DETERMINING EARLY ANTHRACYCLINE TOXICITY WITH ECHOCARDIOGRAPHIC STUDIES AND CARDIAC TROPONIN I

Kazım Öztarhan, Meliha Aslan, Belgin Aktaş, Gönül Aydoğan, Zafer Şalcıoğlu, Ferhan Akıcı

Bakirkoy Maternity and Children Hospital, Istanbul, Turkey

Ref. No: 126 Abstract No: 8

ALL CASE WITH MULTIPLE SOLID LESIONS IN LIVER

Funda Ceran, Gülsüm Özet, Simten Dağdaş, Osman Yokuş, Özlem Şahin Balçık, Murat Albayrak, Mesude Yılmaz, Servet Erbaşı

Ankara Numune Hospital, Ankara, Turkey

Ref. No: 128 Abstract No: 9

ACUTE LYMPHOBLASTIC LEUKEMIA

Saeed Nasouhi Pur, Jamileh Nasouhi Pur

University of Tabriz, Faculty of Pirapezeshki, Departement of Hematology, Tabriz, Iran

Ref. No: 138 Abstract No: 10

FREQUENCY OF CANCERS IN CHILDREN UNDER 14 YEARS OLD IN ALI EBNE ABITALEB HOSPITAL IN ZAHEDAN 2003_2006

[1]Mohammad Ali Mashhadi, [2]Kourosh Shahraki, [2]Eghbal Shirzaei, [2]Farnoush Tajbakhsh, [1]Rahime Khademi, [1]Alireza Rezvani, [1]Neda Shahraki

[1]Ali Ebne Abitaleb Hospital Zahedan, Iran, [2]Zahedan Medical University, Zahedan, Iran

ACUTE MYELOBLASTIC LEUKEMIA (106-108)

Ref. No: 43 Abstract No: 11

ABBERANT ANTIGEN EXPRESSION IN 236 PATIENTS WITH ACUTE MYELOID LEUKEMIA BY MULTI-COLOR FLOW CYTOMETRY

[1]Mesude Yılmaz, [1]Gülsüm Özet, [1]Simten Dağdaş, [1]Funda Ceran, [2]Meltem Ayli, [1]Osman Yokuş, [1]Özlem Balçık, [1]Murat Albayrak, [3]Ayla Gökmen Aköz, [4]Zeynep Aki

[1]Ankara Numune Education And Resarch Hospital, Ankara, Turkey [2]Ufuk University, Ankara, Turkey [3]Karaelmas University, Zonguldak, Turkey [4]Gazi University, Ankara, Turkey

Ref. No: 59 Abstract No: 12

RETROSPECTIVE ANALYSIS OF ACUTE PROMYELOCYTIC LEUKEMIA PATIENTS IN OUR CENTER

Rahmi Aslan, Burcu Çakar, Melek Süzer, Aysel Sarı, Mehmet Turgut

Ondokuz Mayıs University, Samsun, Turkey

Ref. No: 62 Abstract No: 13

CD33–DIRECTED THERAPY WITH GEMTUZUMAB OZOGAMICIN IN ACUTE MYELOID LEUKEMIA: REPORT OF TWO CASES

Ebru Kızılkılıç, Hakan Özdoğu, Can Boğa, Mahmut Yeral

Baskent University Faculty of Medicine, Department of Hematology, Ankara, Turkey

Ref. No: 71 Abstract No: 14

INTRACRANIAL GRANULOCYTIC SARCOMA CASE

Funda Ceran, Osman Yokuş, Özlem Balçık, Murat Albayrak, Zeynep Balcı, Mesude Yılmaz, Simten Dağdaş, Servet Erbaşı, Gülsüm Özet

Ankara Numune Hospital, Ankara, Turkey

Ref. No: 78 Abstract No: 15

THE DETERMINATION OF LEUKEMIC PHENOTYPE AND MINIMAL RESIDUAL DISEASE IN ACUTE MYELOID LEUKEMIA BY USING FLOW CYTOMETRY

Pervin Topçuoğlu, Klara Dalva, Sema Meriç, Sema İpek Şahin, Meral Beksaç, Mutlu Arat

Ankara University, School of Medicine, Ankara, Turkey

Ref. No: 80 Abstract No: 16

EARLY RECURRENCE OF AN AML-M4 CASE SHOWING NORMAL HEAMATOLOGIC PARAMETERS PRESENTING WITH SOLITARY EYE INVOLVEMENT

[1]Mesut Ayer, [2]Makbule Ulusoy, [2]F. Aylin Ayer, [2]Yeşim Gürkan, [2]Hikmet Feyizoğlu, [2]Namık Yiğit, [2]Zekai Kuyubaşı, [2]Arzu Karaçelik

[1]Haseki Training and Research Hospital, 4th Internal Medicine Clinic, Istanbul, Turkey [2]Haseki Training and Research Hospital, 2th Internal Medicine Clinic, Istanbul, Turkey

MOLECULAR HEMATOLOGY (108-109)

Ref. No: 40 Abstract No: 17

DIFFERENTIAL EXPRESSION OF 16 APOPTOSIS RELATED GENES IN VITAMIN D-INDUCED DIFFERENTIATION OF HL-60 CELLS.

[1]Aylin Kanlı, [2]Hakan Savlı

[1]Kocaeli University Faculty of Medicine Department of Medical Biology, Kocaeli, Turkey [2]Kocaeli University Faculty of Medicine Department of Medical Genetics, Kocaeli, Turkey

Ref. No: 94 Abstract No: 18

CIRCULATING ENDOTHELIAL CELLS IN LEUKEMIC PATIENS WHO HAVE CMV ANTIGENEMIA

[1]İlknur Kozanoğlu, [2]Can Boğa, [2]Hakan Özdoğu, [3]Oktay Sözer, [3]Erkan Maytalman

[1]Baskent University Medical Faculty Physiology Department, Ankara, Turkey [2]Baskent University Medical Faculty Hematology Department, Ankara, Turkey [3]Baskent University Adana Hospital Hematology Research Laboratory, Adana, Turkey

ACUTE MYELOBLASTIC LEUKEMIA (109-112)

Ref. No: 96 Abstract No: 19

COLONY FORMING ASSAY IN PATIENTS WITH AML M7

[1]İlknur Kozanoğlu, [2]Can Boğa, [2]Hakan Özdoğu, [3]Erkan Maytalman, [3]Nihan Aldırmaz

[1]Baskent University Medical Faculty Physiology Department, Ankara, Turkey [2]Baskent University Medical Faculty Hematology Department, Ankara, Turkey [3]Baskent University Adana Hospital Hematology Research Laboratory, Adana, Turkey

Ref. No: 99 Abstract No: 20

THERAPEUTIC LEUKOCYTAPHERESIS: THE APPLICATION OF RESULTS OF SINGLE CENTER

[1]İlknur Kozanoğlu, [2]Can Boğa, [2]Hakan Özdoğu, [3]Mahmut Kural

[1]Baskent University Medical Faculty Physiology Department, Ankara, Turkey [2]Baskent University Medical Faculty Hematology Department, Ankara, Turkey [3]Baskent University Adana Hospital Apheresis Unit, Adana, Turkey

Ref. No: 111 Abstract No: 21

SUPPORTIVE CARE BY GRANULOCYTE COLONY-STIMULATING FACTOR IN HYPOPLASTIC ACUTE MYELOGENOUS LEUKEMIA

Can Boğa, Hakan Özdoğu, Mahmut Yeral, Ebru Kızılkılıç, Mutlu Kasar

Baskent University Faculty of Medicine, Department of Hematology, Adana, Turkey

Ref. No: 114 Abstract No: 22

EMA AS SALVAGE REGIMEN IN PATIENTS WITH REFRACTORY/RELAPSE AML: A SINGLE CENTER EXPERIENCE

Pervin Topçuoğlu, Sinem Civriz, Bilge Ceydilek, Meltem Kurt Yüksel, Şule Mine Bakanay, Önder Arslan, Taner Demirer, Akın Uysal, Meral Beksaç, Günhan Gürman, Mutlu Arat, Muhit Özcan

Ankara University, School of Medicine, Ankara, Turkey

Ref. No: 116 Abstract No: 23

ACUTE MYELOID LEUKEMIA PRESENTING AS ACUTE INFERIOR MYOCARDIAL INFARCTION

Mahmut Yeral, Mutlu Kasar, Hakan Özdoğu, Can Boğa
Baskent University Faculty of Medicine, Department of Hematology, Adana, Turkey

Ref. No: 120 Abstract No: 24

EXPRESSION OF UROKINASE PLASMINOGEN ACTIVATOR RECEPTOR IN ACUTE MYELOID LEUKEMIA

Funda Ceran, Simten Dağdaş, Gülsüm Özet, Mesude Yılmaz, Murat Albayrak, Osman Yokuş, Özlem Şahin Balçık
Ankara Numune Hospital, Ankara, Turkey

Ref. No: 122 Abstract No: 25

STANDART AND DOSE MODIFIED ARA-C/IDARUBICIN REMISSION INDUCTION THERAPY IN ELDERLY DE-NOVO ACUTE MYELOID LEUKEMIA PATIENTS: A RETROSPECTIVE ANALYSIS FROM "DENIZLI LEUKEMIA-LYMPHOMA-MYELOMA STUDY GROUP" (DLLMSG)

[1]Ali Keskin, [1]Sibel Kabukçu Hacıoğlu, [1]İsmail Sarı, [2]Burcu Yapar, [3]Nilay Şen, [4]Sami Karti
[1]Pamukkale University, Faculty of Medicine, Department of Hematology, Denizli, Turkey [2]Pamukkale University, Faculty of Medicine, Department of Internal Medicine, Denizli, Turkey [3]Pamukkale University, Faculty of Medicine, Department of Pathology, Denizli, Turkey [4]Denizli Education and Research Hospital, Hematology Unit, Denizli, Turkey

Ref. No: 140 Abstract No: 26

NEPHROTIC SYNDROME AS THE FIRST MANIFESTATION OF ACUTE MYELOGENOUS LEUKEMIA: CASE REPORT

[1]Mohammad Ali Mashhadi, [2]Kourosh Shahraki
[1]Ali Ebne Abitaleb Hospital Zahedan, Iran, [2]Zahedan Medical University, Zahedan, Iran

CHRONIC MYELOID LEUKEMIA (112-116)

Ref. No: 30 Abstract No: 27

ORAL AND CUTANEUS LICHENOID REACTION SECONDARY TO STANDARD DOSE IMATINIB: A CASE REPORT

Servet Erbaşı, Muhterem Polat, Murat Albayrak, Ferda Artuz, Osman Yokuş, Pınar Öztaş, Funda Ceran
Ankara Numune Hastahanesi, Ankara, Turkey

Ref. No: 34 Abstract No: 28

CYTOGENETIC AND CLINICAL FINDINGS OF CHRONIC LYMHOCYTIC LEUKEMIA PATIENTS

[1]Gül İlhan, [1]Neslihan Andıç, [1]Sema Karakuş, [1]Ebru Kızılkılıç, [1]Hakan Özdoğu, [2]Feride Şahin
[1]Baskent University, Department of Hematology, Adana, Turkey [2]Baskent Uiversity, Department of Medical Biology and Genetics, Ankara, Turkey

Ref. No: 48 Abstract No: 29

BOTH KAPPA AND LAMBDA POSITIVE B- CHRONIC LYMPHOCYTIC LEUKEMIA: A CASE REPORT

[1]Servet Erbaşı, [1]Mesude Yılmaz, [1]Gülsüm Özet, [1]Osman Yokuş, [1]Özlem Balçık, [1]Funda Ceran, [1]Aynur Albayrak
[1]ANEAH Hematology, Ankara, Turkey
[2]ANEAH 2. Pathology, Ankara, Turkey

Ref. No: 93 Abstract No: 30

GOOD RESPONSE TO FLUDARABINE IN PATIENT WITH T-CELL LARGE GRANULAR LYMPHOCYTIC LEUKEMIA

[1]Mahmut Töbü, [2]Burhanettin Uludağ, [3]Mine Hekimgil
[1]Ege University Hospital, Department of Hematology, Izmir, Turkey [2]Ege University Hospital, Department of Neurology, Izmir, Turkey [3]Ege University Hospital, Department of Pathology, Izmir, Turkey

Ref. No: 101 Abstract No: 31

SEVERE NEUROTOXICITY OF CLADRIBINE IN A PATIENT WITH HAIRY CELL LEUKEMIA: A CASE REPORT

Gülten Sop, Zafer Gökgöz, Tuğba Gümüş, Şermin Çoban, Füsun Özdemirkıran
Izmir Training and Research Hospital, Izmir, Turkey

Ref. No: 130 Abstract No: 32

POSSIBLE PNEUMOCYSTIS JIROVECI INFECTION IN AN CYTOMEGALOVIRUS POSITIVE CLL PATIENT

Mutlu Kasar, Hakan Özdoğu, Can Boğa, Mahmut Yeral
Baskent University Faculty of Medicine, Department of Hematology, Adana, Turkey

Ref. No: 19 Abstract No: 33

PROMINENT PLEURAL AND PERICARDIAL EFFUSION DUE TO IMATINIB MESYLATE AFTER FIVE YEARS OF THERAPY

Neslihan Andıç, Gül İlhan, Sema Karakuş
Baskent University, Faculty of Medicine, Department of Internal Medicine, Hematology Division, Ankara, Turkey

Ref. No: 45 Abstract No: 34

THE CLINICAL PRESENTATION AND DIFFERENT BCR-ABL TRANSCRIPTS IN CML

[1]Erhan Alkan, [1]Evren Kiriş, [1]Seray Dizlek, [2]Güçhan Alanoğlu, [1]Nilay Uysalgil, [1]Ayşen Timurağaoğlu
[1]Akdeniz University, School of Medicine, Antalya, Turkey [2]Süleyman Demirel University, School of Medicine, Isparta, Turkey

Ref. No: 112 Abstract No: 35

FLAG-IDA IN THE TREATMENT OF REFRACTORY/ RELAPSED ACUTE MYELOID LEUKEMIA: SINGLE-CENTER EXPERENCE

[1]Hakan Özdoğu, [1]Can Boğa, [1]Ebru Kızılkılıç, [2]İlknur Kozanoğlu
[1]Baskent University Faculty Medicine, Department of Hematology, Adana, Turkey [2]Baskent University Faculty of Medicine, Hematology Research Laboratory, Adana, Turkey

Ref. No: 139 Abstract No: 36

CHRONIC MYELOGENOUS LEUKEMIA OCCURRING IN MOTHER AND SON

Cafer Adıgüzel, Işık Kaygusuz, Elif Birtaş Ateşoğlu, Figen Noyan, Mustafa Çetiner, Emel Demiralp, Tülin Fıratlı Tuğlular, Mahmut Bayık
Marmara University School of Medicine,department of Medicine, Division of Hematology, Istanbul, Turkey

HODGKIN'S LYMPHOMA (116-118)

Ref. No: 42 Abstract No: 37

COMPARISON OF BEACOPP AND EVA TREATMENT PROTOCOLS IN REFRACTORY OR RELAPSING HODGKIN LYMPHOMA

[1]Oktay Bilgir, [2]Ferda Bilgir, [1]Mehmet Çalan, [1]Pınar Öner, [3]Esin Kulaç, [1]Murat Akyol, [1]Elif Tuna

[1]Izmir Education And Research Hospital 2nd Internal Diseases Clinic, Izmir, Turkey [2]Buca State Hospital, Internal Diseases Clinic, Izmir, Turkey [3]Kastamonu City Health Center, Kastamonu, Turkey

Ref. No: 76 Abstract No: 38

HODGKIN'S DISEASE: A RETROSPECTIVE ANALYSIS OF 103 PATIENTS FROM A SINGLE REFERRAL CENTRE

[1]Hava Üsküdar Teke, [1]O. Meltem Akay, [1]Eren Gündüz, [2]Ertuğrul Çolak, [1]Zafer Gülbaş

[1]Osmangazi University Faculty of Medicine, Haematology Department, Eskisehir, Turkey [2]Osmangazi University Faculty of Medicine, Biostatistic Department, Eskisehir, Turkey

Ref. No: 77 Abstract No: 39

HODGKIN'S DISEASE IN CHILDREN: DEMOGRAPHIC DATA AND RESULTS OF OUR CLINIC

[1]Ferhan Akıcı, [1]Gönül Aydoğan, [1]Zafer Salcıoğlu, [1]Serdar Sander, [1]Deniz Tuğcu, [1]Arzu Akçay, [1]Hülya Şen, [1]Aysel Kıyak, [1]Hüseyin Aldemir, [2]Fulya Yaman

[1]Bakirkoy Women and Children Diseases Education Hospital, Istanbul, Turkey [2]Istanbul University Oncology Institute Division of Radiation Department, Istanbul, Turkey

Ref. No: 102 Abstract No: 40

HODGKIN'S LYMPHOMA: A RETROSPECTIVE ANALYSIS OF 44 PATIENTS

Gülten Sop, Füsun Özdemirkıran, Tuğba Gümüş, Şermin Çoban

Izmir Training and Research Hospital, Izmir, Turkey

Ref. No: 136 Abstract No: 41

PULMONARY INVOLVEMENT IN HODGKIN'S DISEASE

[1]Mustafa Yenerel, [1]Serdar Şahinoğlu, [2]Öner Doğan, [1]Reyhan Diz Küçükkaya, [1]Meliha Nalçacı

[1]Istanbul University, Istanbul Faculty of Medicine, Department Of Internal Medicine, Division of Hematology, Istanbul, Turkey, [2]Istanbul University, Istanbul Faculty of Medicine, Department of Pathology, Istanbul, Turkey

NON-HODGKIN'S LYMPHOMA (118-124)

Ref. No: 15 Abstract No: 42

CASE REPORT: MANTLE CELL LYMPHOMA WITH PULMONARY INVOLVEMENT AT PRESENTATION

[1]Serkan Ocakçı, [1]Nur Akad Soyer, [1]Murat Tombuloğlu, [2]Nazan Özhan

[1]Ege University, Department of Internal Medicine, Division of Hematology, Izmir, Turkey [2]Ege University, Department of Pathology, Izmir, Turkey

Ref. No: 28 Abstract No: 43

A NON HODGKIN'S LYMPHOMA CASE WITH OVARIAN INVOLVEMENT

Abdullah Hacıhanefioğlu, Naile Gökkaya, Pınar Tarkun, Emel Gönüllü

Kocaeli University, Hematology Department, Kocaeli, Turkey

Ref. No: 51 Abstract No: 44

A CASE OF PLASMABLASTIC LYMPHOMA TRANSFORMED FROM T CELL LYMPHOMA.

Düzgün Özatlı, Nil Güler, Burcu Çakar, Güzin Gönüllü, İdris Yücel

Ondokuz Mayis University, Samsun, Turkey

Ref. No: 56 Abstract No: 45

INCIDENTAL DIAGNOSIS OF THYROID PAPILLARY CANCER IN A ANGIOIMMUNOBLASTIC LYMPHOMA PATIENT BY FDG-PET

[1]Mehmet Turgut, [1]Müge Karaoğlanoğlu, [1]Burcu Çakar, [1]Recep Semiz, [1]Ayşe Kevser Gökçe, [2]Hakan Göker

[1]Ondokuz Mayıs University, Samsun, Turkey [2]Hacettepe University, Ankara, Turkey

Ref. No: 58 Abstract No: 46

NASAL NK/T CELL LYMPHOMA: CASE REPORT

Arzu Ergen, Barkın Sakallıoğlu, Nergiz Dağoğlu, Yavuz Dizdar, Fulya Yaman Ağaoğlu, Emin Darendeliler

Istanbul University, Medicine Faculty of Istanbul, Department of Radiation Oncology, Istanbul, Turkey

Ref. No: 82 Abstract No: 47

PRIMARY MEDIASTINAL B-CELL NON-HODGKIN'S LYMPHOMA PRESENTED WITH CARDIAC INVOLVEMENT

[1]İnci Alacacıoğlu, [1]Nurhilal Turgut, [1]Güner Hayri Özsan, [1]Özden Pişkin, [1]Mehmet Ali Özcan, [1]Fatih Demirkan, [2]Bahri Akdeniz, [3]Mustafa Seçil, [2]Ömer Kozan, [1]Bülent Ündar

[1]Dokuz Eylül University Faculty of Medicine Department of Hematology, Izmir, Turkey [2]Dokuz Eylül University Faculty of Medicine Department of Cardiology, Izmir, Turkey [3]Dokuz Eylül University Faculty of Medicine Department of Radiology, Izmir, Turkey

Ref. No: 89 Abstract No: 48

THE ROLE OF RITUXIMAB ON AUTOLOGUS TRANSPLANTATION FOR NON HODGKIN'S LYMPHOMA

Sinem Civriz Bozdağ, Pervin Topçuoğlu, Ender Soydan, Mutlu Arat, Osman İlhan, Haluk Koç, Meral Beksaç, Akın Uysal, Hamdi Akan, Önder Aslan, Nahide Konuk, Muhit Özcan

Ankara University Faculty of Medicine, Ankara, Turkey

Ref. No: 95 Abstract No: 49

FACS ANALYSIS OF PERIPHERAL T-CELL LYMPHOMA

[1]İlknur Kozanoğlu, [2]Can Boğa, [2]Hakan Özdoğu, [3]Oktay Sözer

[1]Baskent University Medical Faculty Physiology Department, Adana, Turkey [2]Baskent University Medical Faculty Hematology Department, Adana, Turkey [3]Baskent University Adana Hospital Hematology Research Laboratory, Adana, Turkey

Ref. No: 100 Abstract No: 50

ROLE OF HEPATITIS B VIRUS AND HEPATITIS C VIRUS INFECTIONS IN CLINICAL OUTCOMES OF NON-HODGKIN LYMPHOMA

[1]Ramin Yaghobi, [2]Mehdi Roshan Nia Jahromi, [2]Mani Ramzi, [2]Narges Rezaee, [2]Vida Moaied

[1]Shiraz Transplant Research Center, Shiraz, Iran [2]Hematology-Oncology Research Center, Shiraz, Iran

Ref. No: 105 Abstract No: 51

LYMPHOMATOID PAPULOSIS: A CASE REPORT AND TREATMENT MODALITIES IN LOCAL THERAPY RESISTANT CASES

Ömer Doğru, Tiraje Celkan

Cerrahpasa Medical Faculty, Istanbul, Turkey

Ref. No: 119 Abstract No: 52

CLINICAL CHARACTERISTICS AND TREATMENT RESULTS OF PEDIATRIC NON-HODGKIN'S LYMPHOMA

[1]Ferhan Akıcı, [1]Gönül Aydoğan, [1]Zafer Şalcıoğlu, [1]Serdar Sander, [1]Deniz Tuğcu, [1]Arzu Akçay, [1]Hülya Şen, [1]Aysel Kıyak, [1]Hüseyin Aldemir, [2]Öner Doğan

[1]Ministry of Health Bakırköy Women And Children Diseases Education Hospital, Clinics of Pediatric Hematology-Oncology and Pediatric Surgery Istanbul, Turkey, [2]Istanbul University, Division of Pathology, Istanbul, Turkey

Ref. No: 121 Abstract No: 53

CLINICOPATHOLOGIC FEATURES AND TREATMENT RESULTS OF NON-HODGKIN'S LYMPHOMAS IN ELDERLY PATIENTS: A RETROSPECTIVE ANALYSIS FROM "DENIZLI LEUKEMIA-LYMPHOMA-MYELOMA STUDY GROUP" (DLLMSG)

[1]Sibel Kabukçu Hacıoğlu, [1]İsmail Sarı, [2]Sami Karti, [3]Sinemis Yüksel, [4]Nilay Şen, [1]Ali Keskin

[1]Pamukkale University, Faculty of Medicine, Department of Hematology, Denizli, Turkey [2]Denizli Education and Research Hospital, Hematology Unit, Denizli, Turkey [3]Pamukkale University, Faculty of Medicine, Department of Internal Medicine, Denizli, Turkey [4]Pamukkale University, Faculty of Medicine, Department of Pathology, Denizli, Turkey

Ref. No: 127 Abstract No: 54

ARG: A POTENTIAL BIOMARKER FOR DLBCL STAGING

[1]Mansoor Salehi, [1]Zahra Kabiri, [2]Mohammad Modaresi

[1]Isfahan University of Medical Sciences, Isfahan, Iran [2]Tehran University of Medical Sciences, Tehran, Iran

Ref. No: 131 Abstract No: 55

A CASE OF BURKITT'S LYMPHOMA WITH NECROTIZING GRANULOMATOUS REACTION

[1]Evrim Kuş, [1]Cengiz Erçin, [1]Funda Çorapçıoğlu

[1]Kocaeli University, School of Medicine, Department of Pathology, Kocaeli, Turkey [2]Kocaeli University, School of Medicine, Department of Pediatric Hematology-Oncology, Kocaeli, Turkey

Ref. No: 133 Abstract No: 56

LYMPHOMA EXPERIENCE OF LAKES DISTRICT FROM SÜLEYMAN DEMIREL UNIVERSITY SCHOOL OF MEDICIINE

[1]Güçhan Alanoğlu, [2]Bülent Kara, [2]Sema Sezgin Göksu, [1]Nilgün Kapucuoğlu, [4]Hasan Şenol Coşkun

[1]Suleyman Demirel Universty School of Medicine Dept. of Hematology, Isparta, Turkey [2]Suleyman Demirel University School of Medicine Department of Internal Medicine, Isparta, Turkey [3]Suleyman Demirel University School of Medicine Department of Pathology, Isparta, Turkey [4]Suleyman Demirel University School of Medicine Department of Medical Oncology, Isparta, Turkey

Ref. No: 135 Abstract No: 57

UTILITY OF PERIPHERAL BLOOD FLOW CYTOMETRY TO INVESTIGATE THE PERIPHERIZATION OF B-CELL MALIGNANT LYMPHOMAS

Olga Meltem Akay, Eren Gündüz, Hava U. Teke, Gülcihan Demirel, Zafer Gülbaş

Eskisehir Osmangazi University Medical School Hematology Department, Isparta, Turkey

Ref. No: 141 Abstract No: 58

EVALUATION THE RESPONSE RATE OF IEV REGIMEN AS SALVAGE THERAPY FOR RELAPSED / REFRACTORY NON-HODGKIN'S LYMPHOMA PATIENTS

[1]Mohammad Ali Mashhadi, [2]Kourosh Shahraki, [3]Adineh Pour

[1]Ali Ebne Abitaleb Hospital, Zahedan, Iran, [2]Zahedan Medical University, Zahedan, Iran [3]Resident of Internal Medicine in Zahedan Medical University, Zahedan, Iran

LYMHOPROLIFERATIVE DISORDERS (124-125)

Ref. No: 110 Abstract No: 59

OPPORTUNISTIC INFECTIONS IN CASES WITH HAIRY CELL LEUKEMIA

Mahmut Yeral, Hakan Özdoğu, Can Boğa

Baskent University Faculty of Medicine, Department of Hematology, Ankara, Turkey

Ref. No: 137 Abstract No: 60

AUTOIMMUNE HEMOLYTIC ANEMIA AFTER CLADRIBINE THERAPY FOR HAIRY CELL LEUKEMIA

Mustafa Yenerel, Esra Hatipoğlu, Abdullah Özkök, Tanju Atamer

Istanbul University, Istanbul Faculty of Medicine, Department of Internal Medicine, Division of Hematology, Istanbul, Turkey

CHRONIC LYMPHOCYTIC LEUKEMIA (125)

Ref. No: 129 Abstract No: 61

CD4- CD8+ T-CELL PROLYMPHOCYTIC LEUKEMIA: A REPORT OF TWO CASES

Can Boğa, Oktay Sözer, Süheyl Asma, Hakan Özdoğu

Baskent University Faculty of Medicine, Department of Hematology, Ankara, Turkey

MULTIPLE MYELOMA (125-134)

Ref. No: 10 Abstract No: 62

A PROTEAZOM INHIBITOR IN THE TREATMENT OF MULTIPLE MYELOMA: BORTEZOMIB

Özlem Şahin Balçık, Simten Dağdaş, Murat Albayrak, Osman Yokuş, Funda Ceran, Servet Erbaşı, Gülsüm Özet
Ankara Numune Educational and Research Hospital Hematology Department, Ankara, Turkey

Ref. No: 11 Abstract No: 63

GENETIC ABNORMALITIES IN MULTIPLE MYELOMA, THEIR PREVELANCE AND RELATION WITH OTHER RISK FACTORS

Özlem Şahin Balçık, Murat Albayrak, Simten Dağdaş, Funda Ceran, Osman Yokuş, Gülsüm Özet
Ankara Numune Educational and Research Hospital Hematology Department, Ankara, Turkey

Ref. No: 17 Abstract No: 64

TC-99M MIBI OR F-18 FDG IMAGING?: A COMPARATIVE STUDY FOR EVALUATING PATIENTS WITH MULTIPLE MYELOMA

[1]İlknur Ak, [1]İnci Uslu, [2]Zafer Gülbaş
[1]Eskisehir Osmangazi University Medical Faculty Department of Nuclear Medicine, Eskisehir, Turkey
[2]Eskisehir Osmangazi University Medical Faculty Department of Haematology, Eskisehir, Turkey

Ref. No: 24 Abstract No: 65

BORTEZOMIB AND DEXAMETHASONE INDUCED TUMOR LYSIS SYNDROME IN A CASE OF PLASMA CELL LEUKEMIA

Gül İlhan, Neslihan Andıç, Sema Karakuş
Baskent University, Hematology Department, Ankara, Turkey

Ref. No: 38 Abstract No: 66

SUCCESSFUL TREATMENT OF EARLY RELAPSE OF OCULAR MYELOMA WITH BORTEZOMIB AND STEROID AFTER AUTOLOGOUS STEM CELL TRANSPLANTATION

[1]İrfan Yavaşoğlu, [2]Tolga Kocaturk, [1]Gürhan Kadıköylü, [2]Volkan Dayanır, [3]Yelda Dayanır, [1]Zahit Bolaman
[1]Adnan Menderes University, Medical Faculty, Hematology, Aydın, Turkey [2]Adnan Menderes University, Medical Faculty, Opthalomology, Aydın, Turkey [3]Adnan Menderes University, Medical Faculty, Radiology, Aydın, Turkey

Ref. No: 44 Abstract No: 67

COMBINED THERAPY WITH BORTEZOMIB AND DEXAMETHASONE IN PATIENTS WITH RELAPSING MULTIPLE MYELOMA

[1]Oktay Bilgir, [2]Ferda Bilgir, [1]Mehmet Çalan, [1]Pınar Öner, [1]Murat Akyol, [1]Elif Tuna
[1]Izmir Educational and Research Hospital, Izmir, Turkey
[2]Buca State Hospital, Internal Diseases Clinic, Izmir, Turkey

Ref. No: 66 Abstract No: 68

BORTEZOMIB EFFICIENCY IN MULTIPLE MYELOMA

Ebru Kızılkılıç, Can Boğa, Hakan Özdoğu, Mahmut Yeral
Baskent University Faculty of Medicine Department of Hematology, Ankara, Turkey

Ref. No: 67 Abstract No: 69

RETROSPECTIVE ANALYSIS FOR DEMOGRAPHIC FEATURES OF MULTIPLE MYELOMA PATIENTS, AKDENIZ UNIVERSITY EXPERIENCE

Mete Akın, İlknur Nizam, Songul Akcan, Feyzi Bostan, Ihsan KaraDoğan, Ayşen Timurağaoğlu, Levent Ündar
Akdeniz University Dept. of Hematology, Antalya, Turkey

Ref. No: 68 Abstract No: 70

THE EFFECTS OF PLASMA EXCHANGE ON COAGULATION PARAMETERS, AND PLATELET FUNCTIONS IN PATIENTS WITH MULTIPLE MYELOMA

Ali Şahin, Ali Unal, Fatih Kurnaz, Leylagül Kaynar, Mehmet Öztekin, Musa Solmaz, Fevzi Altuntaş, Bülent Eser, Mustafa Cetin
Erciyes University, Medical Faculty, Hematology Department, Kayseri, Turkey

Ref. No: 69 Abstract No: 71

RETROSPECTIVE ANALYSIS FOR CLINICAL AND LABORATORY FINDINGS OF MULTIPLE MYELOMA PATIENTS, AKDENIZ UNIVERSITY EXPERIENCE

Mete Akın, İlknur Nizam, Songul Akcan, Feyzi Bostan, Ihsan KaraDoğan, Ayşen Timurağaoğlu, Levent Ündar
Akdeniz University Dept. of Hematology, Antalya, Turkey

Ref. No: 73 Abstract No: 72

MICROSATELLITE INSTABILITY IN PATIENTS WITH MULTIPLE MYELOMA

[1]Ayşen Timurağaoğlu, [1]Evren Kiriş, [1]Sema Demircin, [1]Seray Dizlek, [2]Güçhan Alanoğlu, [1]Nilay Uysalgil
[1]Akdeniz University, School Of Medicine, Antalya, Turkey
[2]Süleyman Demirel University, School Of Medicine, Isparta, Turkey

Ref. No: 75 Abstract No: 73

AN UNUSUAL PRESENTATION OF MULTIPLE MYELOMA: PLASMACYTIC ASCITES COMPLICATED BY DUODENAL INVOLVEMENT

[1]O. Meltem Akay, [1]Barış Cansu, [2]F. Mustafa Açıkalın, [3]Emre Entok, [1]Zafer Gülbaş
[1] Osmangazi University Faculty of Medicine, Department of Haematology, Eskişehir, Turkey [2]Osmangazi University Faculty of Medicine, Department of Pathology, Eskişehir, Turkey [3]Osmangazi University Faculty of Medicine, Department of Nuclear Medicine, Eskişehir, Turkey

Ref. No: 79 Abstract No: 74

TIME INTERVALS PRECEEDING AUTOLOGOUS STEM CELL TRANSPLANTATION (SCT) IN MULTIPLE MYELOMA PATIENTS: A SINGLE CENTER INTENT TO TRANSPLANT ANALYSIS

Mutlu Arat, Merih Kızıl Çakar, Ender Soydan, Pervin Topçuoğlu, Aynur Uğur Bilgin, Şule Mine Bakanay, Erol Ayyıldız, Önder Arslan, Muhit Özcan, Günhan Gürman, Meral Beksaç, Osman İlhan
Ankara University, School of Medicine, Department of Hematology, Ankara, Turkey

Ref. No: 81 Abstract No: 75

MULTIPLE MYELOMA WITH MASSIVE ASCITES: A CASE REPORT

Nurhilal Turgut, İnci Alacacıoğlu, Özden Pişkin, Selda Ceneli, Güner Hayri Özsan, Fatih Demirkan, Mehmet Ali Özcan, Bülent Ündar
Dokuz Eylul University Faculty of Medicine Department of Hematology, Izmir, Turkey

Ref. No: 85 Abstract No: 76

TREATMENT OF RELAPSED/REFRACTORY MULTIPLE MYELOMA WITH THALIDOMIDE: A RETROSPECTIVE EVALUATION IN A CENTER

[1]Bahriye Payzın, [2]Gülbin Seyman Çetinkaya

[1]Izmir Atatürk Research Training Hospital, Department of Hematology, Izmir, Turkey [2]Izmir Atatürk Research Training Hospital, Department of Internal Medicine, Izmir, Turkey

Ref. No: 103 Abstract No: 77

MULTIPLE MYELOMA: RETROSPECTIVE ANALYSIS OF 35 PATIENTS

Gülten Sop, Füsun Özdemirkıran, Tuğba Gümüş, Şermin Çoban

Izmir Training And Research Hospital, Izmir, Turkey

Ref. No: 113 Abstract No: 78

ORAL MELPHALAN AND PREDNISONE PLUS THALIDOMIDE COMPARED WITH HIGH-DOSE THERAPY FOLLOWED BY AUTOLOGOUS PERIPHERAL-BLOOD STEM-CELL TRANSPLANTATION IN PATIENTS WITH MULTIPLE MYELOMA

Hakan Özdoğu, Can Boğa, Ebru Kızılkılıç, Mahmut Yeral

Baskent University Faculty of Medicine, Department of Hematology, Ankara, Turkey

Ref. No: 132 Abstract No: 79

CLINICAL AND BIOCHEMICAL FEATURES FOR MONITORING MULTIPLE MYELOMA: A RETROSPECTIVE ANALYSIS FROM "DENIZLI LEUKEMIA-LYMPHOMA-MYELOMA STUDY GROUP" (DLLMSG)

[1]Sibel Kabukçu Hacıoğlu, [1]İsmail Sarı, [2]Sami Karti, [3]Nilay Şen, [4]Belda Dursun, [1]Ali Keskin

[1]Pamukkale University, Faculty of Medicine, Department of Hematology, Denizli, Turkey [2]Denizli Education and Research Hospital, Hematology Unit, Denizli, Turkey [3]Pamukkale University, Faculty of Medicine, Department of Pathology, Denizli, Turkey [4]Pamukkale University, Faculty of Medicine, Department of Nephrology, Denizli, Turkey

Ref. No: 98 Abstract No: 80

ENDOTHELIAL CELL KINETICS IN PLASMA CELL LEUKEMIA

[1]İlknur Kozanoğlu, [2]Hakan Özdoğu, [2]Can Boğa, [3]Erkan Maytalman, [3]Oktay Sözer

[1]Baskent University Medical Faculty Physiology Department, Adana, Turkey [2]Baskent University Medical Faculty Hematology Department, Adana, Turkey [3]Baskent University Adana Hospital Hematology Research Laboratory, Adana, Turkey

Ref. No:143 Abstract No: 81

OSTEONECROSIS OF THE JAW IN PATIENTS WITH MULTIPLE MYELOMA TREATED WITH ZOLEDRONIC ACID

Sedat Çetiner[1], Gülsan Türköz Sucak[2], Şahika Zeynep Akı[2], Benay Kocakahyaoğlu[1], Sevil Kahraman[1], Mehmet Araç[3], Mustafa Çetiner[4], Ertan Delilbaşı[1], Rauf Haznedar[2]

[1]Gazi University, Faculty of Dentistry, Department of Oral & Maxillofacial Surgery,Ankara, Turkey
[2]Gazi University, Faculty of Medicine, Department of Hematology, Ankara, Turkey
[3]Gazi University, Faculty of Medicine, Department of Radiology, Ankara, Turkey
[4]Marmara University, Faculty of Medicine, Department of Hematology, Istanbul, Turkey

MYELODYSPLASTIC SYNDROMES (134-135)

Ref. No: 3 Abstract No: 82

DATA FROM THE REGISTRY OF THE PATIENTS WITH MYELODYSPLASTIC SYNDROME FROM CLINIC OF HEMATOLOGY, FUNDENI CLINICAL INSTITUTE, BUCHAREST, ROMANIA. I. EPIDEMIOLOGICAL GENERAL DATA

Gologan Radu, Georgescu Daniela

Clinic of Hematology, Fundeni Clinical Institute, Bucharest, Romania

Ref. No: 108 Abstract No: 83

TREATMENT OF HIGH-RISK MYELODYSPLASTIC SYNDROME WITH DEMETHYLATING AGENTS

Banu Diri, Can Boğa, Hakan Özdoğu, Mutlu Kasar

Baskent University Faculty Of Medicine, Department Of Hematology, Adana, Turkey

Ref. No: 134 Abstract No: 84

FLOW CYTOMETRIC ANALYSIS OF PERIPHERAL BLOOD IN DIAGNOSIS OF MYELODYSPLASTIC SYNDROMES

Eren Gündüz, Olga Meltem Akay, Hava Üsküdar Teke, Gülcihan Demirel, Zafer Gülbaş

Osmangazi University, Eskişehir, Turkey

MYELOPROLIFERATIVE DISORDERS (135)

Ref. No: 97 Abstract No: 85

CIRCULATING CD34 CELLS IN MYELOFIBROSIS

[1]İlknur Kozanoğlu, [2]Hakan Özdoğu, [2]Can Boğa, [3]Oktay Sözer

[1]Baskent University Medical Faculty Physiology Department, Adana, Turkey [2]Baskent University Medical Faculty Hematology Department, Adana, Turkey [3]Baskent University Adana Hospital Hematology Research Laboratory, Adana, Turkey

Ref. No: 107 Abstract No: 86

NORMALIZATION OF PLATELET COUNT DURING PREGNANCY IN A PATIENT WITH ESSENTIAL THROMBOCYTHEMIA

Can Boğa, Hakan Özdoğu

Baskent University Faculty of Medicine, Department of Hematology, Ankara, Turkey

CHRONIC MYELOID LEUKEMIA (135-136)

Ref. No: 115 Abstract No: 87

DOES BRASSICA RAPE (A PLANT FROM FAMILY BRASSICACEAE) SOLUTION INDUCE FLUID RETENTION IN CML PATIENTS WHO RECEIVED IMATINIB?

Süheyl Asma, Can Boğa, Hakan Özdoğu

Baskent University Faculty of Medicine, Department of Hematology, Ankara, Turkey

Ref. No: 117 Abstract No: 88

TREATMENT ALTERNATIVES IN YOUNG-POOR RISK CML PATIENTS

Süheyl Asma, Can Boğa, Hakan Özdoğu, Ebru Kızılkılıç

Baskent University Faculty of Medicine, Department of Hematology, Ankara, Turkey

Ref. No: 118 Abstract No: 89

PERIPHERAL POLYNEUROPATHY ASSOCIATED WITH IMATINIB TREATMENT

Can Boğa, Hakan Özdoğu
Baskent University Faculty of Medicine, Department of Hematology, Ankara, Turkey

PALLIATIVE CARE – SUPPORTIVE THERAPY (136-137)

Ref. No: 47 Abstract No: 90

FEBRILE NEUTROPENIC EPISODES IN ACUTE LEUKEMIA PATIENTS: EXPERIENCE OF BAŞKENT UNIVERSITY HOSPITAL

[1]Neslihan Andıç, [1]Sema Karakuş, [1]Gül İlhan, [2]Funda Timurkaynak, [2]Hande Aslan
[1]Baskent University, Faculty of Medicine, Department of Internal Medicine, Hematology Division, Adana, Turkey
[2]Baskent University, Faculty of Medicine, Department of Infectious Diseases, Ankara, Turkey

STEM CELL TRANSPLANTATION (137)

Ref. No: 7 Abstract No: 91

TESTS, HISTORICAL EFFORTS AND IMMUNE RECONSTITUTION IN CORD BLOOD STEM CELLS TRANSPLANTATION

Shaban Alizadeh, Ali Abedi, Shahab Bohlooli
Arums, Iran

Ref. No: 70 Abstract No: 92

AUTOLOGOUS HEMATOPOIETIC STEM CELL TRANSPLANTATION FOR LYMPHOMA AND MYELOMA AT YEDITEPE UNIVERSITY HOSPITAL

Sabiha Yüce, Gülçin Kalaycı, Sema Aktaş, Didem Aydın, Başak Oyan, Yener Koç
Yeditepe University Stem Cell Transplant Unit, Istanbul, Turkey

MISCELLANOUS (138)

Ref. No: 142 Abstract No:93

RELATIONSHIP BETWEEN INSULIN RESISTANCE AND SOME COAGULATION AND FIBRINOLYTIC PARAMETERS IN SUBJECTS WITH METABOLIC SYNDROME

[1]Nashwa Abou Samra, [1]Amany Ragab, [2]Asmaa Higazy, [2]Omayma Saleh
[1]Departments Of Clinical Pathology Faculty Of Medicine, Mansoura University, Egypt [2]Internal Medicine, Faculty Of Medicine, Mansoura University, Egypt

ABSTRACTS

ACUTE LYMPHOBLASTIC LEUKEMIA

Ref. No: 8 Abstract No:1

THALASSEMIA MINOR AS ONE OF RISK FACTORS FOR CHILDHOOD LEUKEMIA

[1]Masood Bazrgar, [2]Mehran Karimi, [2]Masoumeh Talebi, [2]Mahin Farahmand Beigi

[1]Human Genetic Research Group, Iranian Academic Center For Education, Culture & Research (acecr), Fars Province Branch, Shiraz, Iran, [2]Hematology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran.

Leukemia is a highly frequent cancer with unknown mechanism of pathogenesis in the most of the cases. This study was performed to determine the association of some probable life threatening factors with childhood leukemia. 153 bone marrow aspiration (BMA) confirmed leukemic children (age<18 years) and 153 age-sex matched healthy controls from Southern Iran were asked about probable risk factors for leukemia. 88 of the patients who were in remission phase were studied for thalassemia trait according to complete blood count and hemoglobin electrophoresis. Significant differences were observed between patients and controls in birth weight (P<0. 003), maternal age during pregnancy (P<0. 001), life closed to powerful electrical stations (P<0. 002), Pregnant mother or child passive smoking (P<0. 001), father injuring with chemical weapons (P<0. 005) and family history of leukemia (P<0. 02) while encountering of mother and child with X-ray, history of other malignancies in child and history of abortion were not statistically different. Frequency of thalassemia minor in the patients was higher than normal population (23. 9% vs. 7. 5%, P<0. 001, odds ratio=3. 87, 1. 87<OR

Ref. No: 13 Abstract No:2

LATE EXTRAMEDULLARY RELAPSES OF ACUTE LEUKEMIA

[1]Nesrin Karabul, [1]Salmai Turial, [1]Peter Gutjahr

[1]Childrens Hospital of University Mainz, Department of Pediatric Oncology, Germany [2]Childrens Hospital of University Mainz, Department of Pediatric Surgery, Germany

Introduction: We report about two girls with isolated ovarial extramedullary relapse of acute lymphoblastic leukemia. We present the case histories and we will discuss the role of therapy (chemotherapy and radiatio) and of surgery in these cases. Case 1: This girl had the primary diagnosis of a Pre-B-All (acute lymphoblastic leukemia, immunologically typed as “low risk”). Treatment was done according to the CoALL82-protocol, which is one of the two usually used treatment protocols for ALL in Germany. At the age of 7 and 9 years bone marrow relapses occurred. They were retreated by even more aggressive chemotherapy till the age of 11 years. After a while she presented with a huge abdominal mass, the open biopsy showed lymphoblastic cells in the ovary, chemotherapy and low-dose radiatio. Salpingo-oophorectomy was done. 21 years after the first diagnosis of ALL, the young women is in complete continuous hematologic remission. Case 2: 14 years old girl, with Pre-B-All, typ “low risk” was treated according to the treatment protocol CoALL06-97. She was in hematologic remission for 18 months. Then she had abdominal pain. Ultrasound and CT showed masses originating from both ovaries (5 and 8 cm). In the laparoscopic biopsies from one ovary and a lymph node we found ovarian relapse of ALL, in the bone marrow puncture, which was done during the operation, were no signs of malignacy. The treatment was following BFM protocol for ALL-recurrence. The tumor masses regressed and after 6 months control laparoscopy was done. At the age of 18 years she has ophthalmogical problems and now we diagnosed a isolated CNS-relapse of ALL. Discussion: In the second case additional radiatio as a potential treatment modality was avoided and fertility probably preserved. Laparoscopy is able to explore abdominal tumors, do staging procedures, and it can give a very good visualisation of intraabdominal tumors. In selected cases biopsies can be done; the indication can intraoperatively be discussed interdisciplinary. This way of exploration of abdominal gives safer results of histologic specimen compared with percuataneous biopsy and it is less invasive compared with open biopsy.

Ref. No: 83 Abstract No: 3

RESULTS OF HYPERFRACTIONATED CYCLOPHOSPHAMIDE, VINCRISTINE, DOXORUBICIN, AND DEXAMETHASONE (HYPER-CVAD) IN ADULT ACUTE LYMPHOBLASTIC LEUKEMIA: SINGLE CENTER EXPERIENCE

İnci Alacacıoğlu, Nurhilal Turgut, Fatih Demirkan, Mehmet Ali Özcan, Özden Pişkin, Güner Hayri Özsan, Selda Ceneli, Bülent Ündar

Dokuz Eylul University Faculty Of Medicine Department of Hematology, Izmir, Turkey

Objective: The aim of the study was evaluation of the effect of hyperfractionated cyclophosphamide, vincristine, doxorubicin, and dexamethasone (Hyper-CVAD) regimen on remission-induction and overall survival (OS) in acute lymphoblastic leukemia (ALL) patients. Methods: Twenty patients with ALL who were treated with Hyper-CVAD between January 2001 and May 2006 in our clinic were evaluated retrospectively. The median age of the patients at diagnosis was 32±13. 1 with a 3/1 M/F ratio. 60% (12 patients) was diagnosed as precursor B cell, 5% (1 patient) as mature B cell, 35% (7 patients), as T-cell ALL. The overall incidence of Philadelphia chromosome (Ph) positive ALL was 15%. Results: The mean follow-up time of all patients was 14. 1 months (3-36 months). A complete response (CR) was achieved in 75% of the patients. Duration of CR was 12±7. 8 months in these patients. The induction mortality rate was 5% (1/20). The OS was 14±1. 8 months with a 20% 2-year survival rate. The patients with good performance status (ECOG 1-2) lived longer (21±5. 57months x 8±1. 5months, p=0. 03). Conclusion: Short term follow-up results with hyper-CVAD regimen does not seem favorable according to our experience.

Ref. No: 86 Abstract No: 4

METHOTREXATE INDUCED NEUROTOXICITY DURING HYPER CVAD TREATMENT IN A PATIENT WITH ALL

Düzgün Özatlı, Nil Güler, Nevzat Selim, Mehmet Turgut

Ondokuz Mayis University, Samsun, Turkey

Methotrexate induced neurotoxcity during Hyper CVAD treatment in a patient with ALLDüzgün Özatlı, Nil Güler, Nevzat Selim, Mehmet TurgutOndokuz Mayis

University, Medical School, Department of Hematology, Samsun, Turkey Methotrexate related neurotoxcitiy is well documented among children ALL patients. It is frequently presented as seizures. Most authors believe that neurotoxicity induced with methotrexate may be due to complex or multifactorial mechanisms. Here in, we will present young adult man complicated his treatment with neuropathy occurring during methotrexate infusion. Twenty years old man diagnosed with T cell acute lymphoblastic leukemia (ALL). Hyper CVAD A chemotherapy protocol treatment was given. His bone marrow aspiration was compatible with remission after chemotherapy protocol treatment. He was hospitalised again for Hyper CVAD B chemotherapy protocol treatment. The symptoms that compatible with periferic facial paralysis was occurred during methotrexate loading dose infusion. Treatment was stopped. Ca,Mg,K levels were normal. Symptoms regressed after stopping the methotrexate treatment. After one hour, methotrexate infusion treatment was given the patient again. Same symptoms were occurred. The treatment was stopped again. A neurological consultation was made. His cranial CT and MR were normal. Neurological examination was compatible with periferic facial paralysis. It resolved with steroids within days. Our consideration is this situation was result of the methotrexate neurotoxicity. We found this case report as valuable. Because the methotrexate induced neurotoxcity is frequently presented as seizures.

Ref. No: 104 Abstract No: 5

METHOTREXATE INDUCED NEUROTOXICITY DURING HYPER CVAD TREATMENT IN A PATIENT WITH ALL

Düzgün Özatlı, Nil Güler, Nevzat Selim, Nazir Yayla
Ondokuz Mayis University, Samsun, Turkey

Methotrexate induced neurotoxcity during Hyper CVAD treatment in a patient with ALLDüzgün Özatlı, Nil Güler, Nevzat Selim, Nazir YaylaOndokuz Mayıs University, Medical School, Department of Hematology, Samsun, TurkeyMethotrexate related neurotoxcity is well documented among children acute lymphoblastic leukemia (ALL) patients. It is frequently presented as seizures. Most authors believe that neurotoxicity induced with methotrexate may be due to complex or multifactorial mechanisms. Here in, we will present young adult man complicated his treatment with peripheral facial paralysis occurring during methotrexate infusion. Twenty years old man diagnosed T cell ALL. Hyper CVAD chemotherapy treatment was given. After A arm of this protocol treatment his bone marrow aspiration was compatible with remission. During Hyper CVAD B arm chemotherapy treatment, the symptoms that compatible with periferic facial paralysis was occurred during methotrexate loading dose infusion. Treatment was stopped. All blood electrolyte levels were normal limits. Symptoms regressed after stopping the methotrexate treatment. After one hour, methotrexate infusion treatment was given the patient again. Same symptoms were occurred. The treatment was stopped again. A neurological consultation was made. Neurological examination was compatible with periferic facial paralysis. His cranial CT and MR were normal. Steroid treatment was started and the symptoms were resolved within days. Our consideration is that the situation was result of the methotrexate neurotoxicity. This is the first case presented with peripheral facial paralysis due to methotrexate neurotoxicity.

Ref. No: 123 Abstract No: 6

RESEARCHING THE EFFECT OF ANTHRACYCLINE CARDIOTOXICITY TO SYSTOLIC AND DIASTOLIC FUNCTIONS OF HEART WITH ECHOCARDIOGRAPHY

Belgin Aktaş, Kazım Öztarhan, Gönül Aydoğan, Zafer Şalcıoğlu, Ferhan Akıcı
Bakirkoy Maternity and Children Hospital, Istanbul Turkey

Objective: The objective of this study was to examine the effects of anthracycline treatment to diastolic and systolic functions of heart by echocardiographic studies. Methods: Between March 2002 and February 2003, 25 children in the care of Bakirkoy Maternity and Children Hospital, receiving chemotherapy were examined. Studies were stratified acording to cumulative anthracycline dose into five groups. Diastolic and systolic functions of heart were determined for each patient before and during treatment by Doppler echocardiography. Results: The study included 25 patients. There were 13 girls and 12 boys. 15 children(7 boys and 8 girls) were taken to control group. Body surface area and ages of patient and control groups were similar. Blood pressure,left ventricular diastolic and systolic diameter of pretreatment group and control group were not similar. During treatment increase at heart rate, systolic blood pressure, increase a light diastolic filling velocity and decrease at E/A ratio of patient and control groups were not similar. Conclusions: The determination of the changes at the diastolic functions is important for the diagnosis early heart disease. Further research is needed to determine these datas.

Ref. No: 125 Abstract No: 7

DETERMINING EARLY ANTHRACYCLINE TOXICITY WITH ECHOCARDIOGRAPHIC STUDIES AND CARDIAC TROPONIN I

Kazım Öztarhan, Meliha Aslan, Belgin Aktaş, Gönül Aydoğan, Zafer Şalcıoğlu, Ferhan Akıcı
Bakirkoy Maternity and Children Hospital, Istanbul, Turkey

Abstract: Childhood acute leukemia is the most common malignancy diagnosed in children (%32). In our country after leukemia the second common malignancy is lymphome(%25. 3) and the third is central nervous system tumors(%10. 6). By the last 30 years with the development in the diagnosis methods especially at lymphoblastic leukemia the long time survival percentage reached up to %70-80. Anthracycline drugs are given as part of chemotherapy for a wide range of malignant diseases and have been particularly valuable for the successful treatment of many childhood malignancies. The most commonly used types are doxorubicin and daunorubicin. Because of the high antitumoral effect, doxorubicin is used at the treatment of either solid tumors or hematologic malignanies. Daunorubicin is used effectively at the treatment of acute lymphoblastic and myeloblastic leukemia for both children and adults. More than 20 years the anthracycline cardiotoxicity is associated with cumulative doses. This threats the patients cardiac functions and limits the use of these drugs. Clinically the cardiotoxicity related with dose can be seen weeks,months or years after treatment ends. To determine the cardiotoxic effects of these agents some of the recent used methods are: following cardiac enzymes, electrocardiography, echocardiography, radionücleid angiography and transvenoz cardiac biopsy. Results: 158 echocardiographic and cardiac troponinI studies were performed. Studies

were stratified according to cumulative anthracycline dose into nine groups. Diastolic and systolic functions of heart were determined for each patient before and during treatment by Doppler echocardiography and blood cardiac troponinI. The importance of echocardiography and cardiac troponinI by earlier diagnosing of cardiotoxicity is determined. Cardiac failure is occured at 8 patient during chemotherapy. Although antikongestive treatment 2 patients were died. Both of them were ALL-L1 diagnosed girls. Conclusions: 1- Recent studies shows that before systolic functions diastolic functions are damaged. In our study we had the similar results to these studies. In our study peak atrial phase velocity(Av) was increased and E/A ratio was decreased. We determined the cut-off values of peak atrial phase velocity(Av) and E/A ratio. According to this Av>0. 6180m/sn and E/A<1 are the cut-off values of diastolic function damages. (Fig. 1-2) 2. Our study shows that cardiac troponinI doesn't determines the myocard damage related with cumulative anthracycline dose but increases after the last term heart insufficiency begins. (Fig. 3) According to this, determining early cardiac damage related with anthracyclines cardiac troponinI doesn't have a spesific role. 3. At early diagnosis of anthracycline cardiotoxicity echocardiographic studies have the most important role. Further reserch is needed for the cardiac troponins.

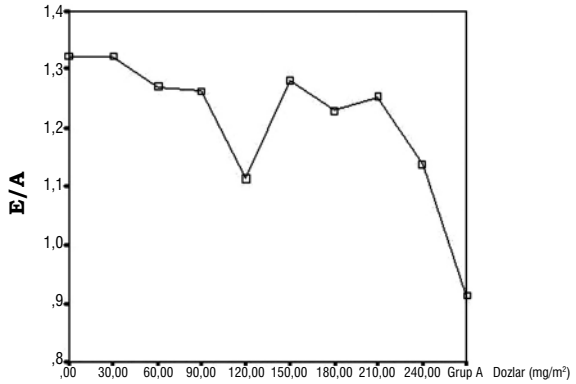


Fig 1. Changes in E/A ratio with increasing cumulative anthracycline dose.

Ref. No: 126 Abstract No: 8

ALL CASE WITH MULTIPLE SOLID LESIONS IN LIVER

Funda Ceran, Gülsüm Özet, Simten Dağdaş, Osman Yokuş, Özlem Şahin Balçık, Murat Albayrak, Mesude Yılmaz, Servet Erbaşı
Ankara Numune Hospital, Ankara, Turkey

Introduction: Hepatomegaly is common in newly diagnosed and relapsed patients with acute lymphoblastic leukemia(ALL). Usually, it is related to diffuse enlargement secondary to infiltration by leukemic lymphoblasts. Involvement as solid mass lesions is rare. Since multiple solid lesions in liver cases are not common, we have found this case suitable to declare. Case: 22 year old woman was diagnosed B-ALL a year ago. We pointed bone marrow relapse and planned to apply allogeneic hematopoietic stem cell transplantation. Multiple solid lesions in liver were detected by ultrasonograpy just before treatment. Biopsy showed ALL infiltration. In addition heamatological relapse was observed. FLAG treatment protocol including fludarabine and ARA-C was given to the patient. In bone marrow examination after treatment, we established remission. And there were no lesions in liver by ultrasonograpy.

Ref. No: 128 Abstract No: 9

ACUTE LYMPHOBLASTIC LEUKEMIA

Saeed Nasouhi Pur, Jamileh Nasouhi Pur
University of Tabriz, Faculty of Pirapezeshki, Departement of Hematology, Tabriz, Iran

Abstract: we performed this study during 10 years, at the mentioned hospital From 1987 untile 1996. During this time studing performed on 76 leukemic Children at that Hospital. From 76 cases acute leukemias, 7 cases Were Acute Myeloid leukemias and 69 cases were ALL. From 69 cases Acute Lymphoblastic leukemias, 29 cases were ALL- L1, and 34 cases Were ALL-L2 and 6 cases were only ALL- L3. The blast cells in ALL-L3 Were large /uniform, and nucleus shape was round to oval,homogenous, And had also one or more,vesicular, often prominent nucleoli and its Cytoplasm, abundant,deeply basophilic. Aims: Studing on ALL burkit Type and its causes. Methods: Examinations peripheral blood and B. M. and cytochimical methods, besides Cytochimical methods, immunologic procedures have proved very useful for Classifiying the acute leukemias and especially for the differentiation of ALL And its subgroups. Results: This type of ALL is rare and usually are B- ALL Conclusions: This type of ALL was seen in children who had 9 to 11 or 12 years old and it sounds that they was bor n from older mothers Or women, because, we observed that the their mothers had over 40 years old *Email: hem1331@ yahoo. com*

Ref. No: 138 Abstract No: 10

FREQUENCY OF CANCERS IN CHILDREN UNDER 14 YEARS OLD IN ALI EBNE ABITALEB HOSPITAL IN ZAHEDAN 2003_2006

[1]Mohammad Ali Mashhadi, [2]Kourosh Shahraki, [2]Eghbal Shirzaei, [2]Farnoush Tajbakhsh, [1]Rahime Khademi, [1]Alireza Rezvani, [1]Neda Shahraki
[1]Ali Ebne Abitaleb Hospital Zahedan, Iran, [2]Zahedan Medical University, Zahedan, Iran

Background: The aim of this study is to present the frequency of cancers in children who were treated in Ali Ebne Abitaleb Hospital of the Zahedan in the period of 2003_2006. Patients & Methods: This retrospective survey covered consecutively diagnosed and treated patients admitted to Ali Ebne Abitaleb Hospital in Zahedan. The research protocol was discussed extensively, so the data to be collected and the criteria for their evaluation were clearly pre-defined. We analyzed 714 patients diagnosed between 2003_2006 with various cancers. 147 cases under 14 years old was selected. From these analyses, the general and specific frequency by age and by sex were obtained for the different group of neoplasms. Also, the frequency of the stage of the disease that had been diagnosed in cases of children with solid tumors was obtained. Survival analyses were carried out using the SPSS and Kaplan-Meier Method, according to gender, age, vital status and stage. Results: A total 147 cases of children with cancer were diagnosed, with the male/female ratio at 1. 7/1. Leukemia had the highest frequency with 94 cases (63%) and, of theses, Acute Lymphoblastic Leukemia (ALL) was the most prevalent with 77 cases (82%). Thereafter, in descending order of frequency, were Lymphoma with 27 cases(18%); HD=9 & NHL=18, Bone

tumors with 8 cases (5%), Tumors of the Central Nervous System (CNST) with 7 cases (4%), Neuroblastoma with 4 cases (2%). The highest frequency of cancer was found in the group of 4_8 years olds that had 53 cases (36%) and in the group of 0_4 years; N=47, 31%. In the all age groups, leukemia was the most frequent. Of those cases of solid tumors for which the stage of the disease had been determined 64% were diagnosed as being stage III or IV. Conclusions: The principals cancers in the children treated in Ali Ebne Abitaleb Hospital of Zahedan were Leukemia, Lymphoma, and CNST consistent with those reported by other place. In this population Leukemia had a very high incidence and that for Germinal Cell Tumor and Neuroblastoma is very low. This fact will need to be confirmed by a longer period of observation, but even now the total number of cases (particularly Leukemia) is high when compared with the data of other children Leukemia registries which give rates for longer period and for similar or larger population.

ACUTE MYELOBLASTIC LEUKEMIA

Ref. No: 43 Abstract No: 11

ABBERANT ANTIGEN EXPRESSION IN 236 PATIENTS WITH ACUTE MYELOID LEUKEMIA BY MULTI-COLOR FLOW CYTOMETRY

[1]Mesude Yılmaz, [1]Gülsüm Özet, [1]Simten Dağdaş, [1]Funda Ceran, [2]Meltem Ayli, [1]Osman Yokuş, [1]Özlem Balçık, [1]Murat Albayrak, [3]Ayla Gökmen Aköz, [4]Zeynep Aki
[1]Ankara Numune Education And Resarch Hospital, Ankara, Turkey [2]Ufuk University, Ankara, Turkey [3]Karaelmas University, Zonguldak, Turkey [4]Gazi University, Ankara, Turkey

Recently immunophenotyping is spreadely used in the diagnosis and classification of leukemia. To evaluate the immunophenotype and abberant antigen expression of acute myeloid leukemi (AML), multiparameter flow cytometry and CD45/SSC gating were used to analyse the surface and cytoplasmic antigen expression in 236 new diagnosed AML patients in Ankara Numune Education and Research Hospital between 2003-2005. The results were compared with FAB classification to help define the best use and role of multiparameter flow cytometry in the diagnosis and proper classification of AML. The distribution of the patients according to FAB classification was as follows: 30 (13 %) patients were M0, 60 (26%) were M1, 80 (34%) were M2, 21 (9%) were M3, 27 (12%) were M4, 11 (5%) were M5 and 7 (3%) were M6. CD34,CD117, CD13, CD33, CD14, CD11b, CD15, CD64, cMPO, cTdT, Anti-HLADR, CD2, CD7, CD19, CD56 expressions were analysed in all of the patients' marrow aspiration materials or blood samples by flow cytometry. CD56 was the most commonly expressed abberant antigen (19 %), followed by CD7 (12%), CD7+CD56+ (8%), CD19 (6%), CD2 (4%), CD7+CD19+ (3%). Some immunophenotypes correlated with FAB type, including increased frequency of CD2 and CD56 in M3; increased frequency of CD19 in M2, and CD7+CD56 in M0.

Ref. No: 59 Abstract No: 12

RETROSPECTIVE ANALYSIS OF ACUTE PROMYELOCYTIC LEUKEMIA PATIENTS IN OUR CENTER

Rahmi Aslan, Burcu Çakar, Melek Süzer, Aysel Sarı, Mehmet Turgut
Ondokuz Mayıs University, Samsun, Turkey

Acute promyelocytic leukemia comprises approximately % 10-15 of acute myeloid leukemia. The disease is more often at younger age in contrast to the other acute myeloid leukemia subtypes and the most significant characteristic is that there is an increased tendency to hemorrhage. By the late 1980's the disease had been treated like the other acute myeloid leukemia subtypes and complete remission was reported in about % 60-65 of the cases. In our study, we aimed to investigate the data of the patients with acute promyelocytic leukemia retrospectively between 2000-2006 and to determine our own findings and compare the compatibility of them with literature. Modify AIDA protocol was administered to all the patients. The median age of the group was 42 and it was younger than that of acute myeloid leukemia. There was no difference between the gender. The patients average application time to hospital was 11 days after the symptoms occured. The medium white cell count was 23. 180/mm3 which was 2000/mm3 much higher than the literature. %89 of patients at admission had symptoms and signs (ecchymosis, hematuria, epistaxis) of bleeding tendency. However, we demonstrated coagulopathy at %51 of patients by laboratory. The coagulopathy clinic and laboratory symptoms were concordant with the literature. The complete remission rate of our patients was % 70. 8. Four patients (%17) died due to early hemorrhagic complications. The complete remission was lower and early death rate was higher when compared with the literature. Retinoic acid syndrome rate was % 22. Retinoic acid syndrome rate is reported to be % 10-15 in literature. Even if white blood cell count on admission to hospital is reported to be frequently high, there is no precise risk factor that has been demonstrated for the development of the retinoic acid syndrome. We also have failed to find a parameter leading to predisposition to the syndrome. Consequently, there was no difference between the patient group and the literature in terms of the demographic findings such as age, gender. The development of retinoic acid syndrome and the loss of patients resulting from early death were higher, but complete remission rate was lower compared to literature. The reasons behind these were that the white blood cell count on admission to hospital were higher compared with the literature and the patients were referred to hospital late. The difference between literature and our findings might be caused by the fact that the number of our patients were lower than that of the multicenter study.

Ref. No: 62 Abstract No: 13

CD33–DIRECTED THERAPY WITH GEMTUZUMAB OZOGAMICIN IN ACUTE MYELOID LEUKEMIA: REPORT OF TWO CASES

Ebru Kızılkılıç, Hakan Özdoğu, Can Boğa, Mahmut Yeral
Baskent University Faculty of Medicine, Department of Hematology, Ankara, Turkey

Acute myeloid leukemia is a heterogeneous group of haematopoetic clonal disorders. In most cases, a combination of anthracylin and cytarabine is used during the induction phase. Unfortunately many patients relapse within a few months. CD33 is expressed on the malignant

blast cells in most cases of acute myeloid leukemia (AML) but not on normal hematopoietic pluripotent stem cells. Antibody-based therapies have focused on the membrane antigen CD33. Gemtuzumab ozogamicin consists of a humanized IgG4 anti CD33 monoclonal antibody joined to N-acety-γ-calicheamicin dimethyl hydrazide. We report the use of single agent gemtuzumab ozogamicin (GO) in chemotherapy refractory relapse acute myeloid leukemia. A 17-years old boy was diagnosed with AML MO in May 2005. Cytogenetic analysis was normal. Induction treatment consisted of a combination of idarubicin and cytarabine. He was not response for induction therapy. He achieved partial response after fludarabine, cytarabine and G-CSF (FLAG). He had identical related donor (his aunt) and peripheral stem cell transplantation was performed in March 2006. He relapsed on day +95. The patient received donor lymphocyte infusion and high dose cytarabine. This salvage therapy failed and a bone marrow aspirate a month later showed massive infiltration of blast cells. The positive CD33 expression by the blast use of gemtuzumab ozogamicin was proposed. This treatment was given at conventional dose of 9 mg/m2, given 2h infusion on days 1 and 15. On day 35 after first GO dose, control bone marrow aspirate showed massive infiltration. He died after 3 month due to sepsis. The other patient was 60 years old man. He was diagnosed with AML MO in April 2006. Cytogenetic revealed the presence of deletion 7q. He did not response induction therapy with cytarabine and mitoxantrone. The patient was given 9 mg/m2 gemtuzumab ozogamicin. He died after one day with sepsis. This observation supported the thesis that GO might be useful in patients with AML before deterioration.

Ref. No: 71 Abstract No: 14

INTRACRANIAL GRANULOCYTIC SARCOMA CASE

Funda Ceran, Osman Yokuş, Özlem Balçık, Murat Albayrak, Zeynep Balcı, Mesude Yılmaz, Simten Dağdaş, Servet Erbaşı, Gülsüm Özet

Ankara Numune Hospital, Ankara, Turkey

Introduction: Granulacytic sarcoma (GS) is an extramedullary tumor with immature myeloid cells. It can be seen as a complication during Acute Myeloid Leukemia (AML), Myelodisplastic Syndrome or Myeloproliferative Diseases. Many systems could be involved such as skin, lungs, genitourinary system and breasts. In central nervous system, cerebro spinal fluid invasion could be seen but paranchimal lesions are rare. Generally GS`s are diveded in 4 groups: 1) Primary GS 2) GS in AML 3) GS as isolated relapse 4) GS present at the diagnoses of AML. Intracerebral GS has a poor prognosis. Diagnosis is made by performing a biopsi on the mass detected by MR or CT. Systemic treatment that contains high dose ARA-C, local treatment (intrathecal) and radiotherapy could be helpful. As intracranial GS cases are rare we have found this case suitable to declare. CASE: 35 year old man, who was diagnosed AML 2 years ago, was in remision when he came up in february 2007 with headache, unable to walk and changes in conciousness. At the admission we pointed bone marrow relapse. With Cranial CT a tumor was detected in right posterior fossa which is 40x32 mm sized, surrounded with edema and compressing the fourth ventricule. Also MRI was performed. Steroids and anti-edematous treatment was given at first but there was no significant difference in the clinic of the patient. Patient couldn`t be operated or any biopsy couldn`t be taken from the lesion because of his general situation. We initiated the high dose ARA-C therapy. In the second day of the treatment patients headaches started to heal and his general health showed improvement. In the following days the patient was able to walk again. In bone marrow examination after treatment, we established remission. Significant regression was seen in control CT and MRI. Under this circumstances we diagnosed patient as GS.

Ref. No: 78 Abstract No: 15

THE DETERMINATION OF LEUKEMIC PHENOTYPE AND MINIMAL RESIDUAL DISEASE IN ACUTE MYELOID LEUKEMIA BY USING FLOW CYTOMETRY

Pervin Topçuoğlu, Klara Dalva, Sema Meriç, Sema İpek Şahin, Meral Beksaç, Mutlu Arat

Ankara University, School of Medicine, Ankara, Turkey

The hematological remission in acute leukemia is defined as the achievement of complete hematological recovery in peripheral blood and the a decrease of leukemic blasts below 5 %. The persistency of malignant cells below 5% is called as minimal residual disease (MRD). A number of publications have reported that the presence of MRD after the treatment(s) might predict relapse of the underlying disease. One of the convenient methods used for the detection of MRD is immunophenotyping with FCM. In this study we aimed to evaluate both the leukemic cell immunophenotype(IP) at the diagnosis and the amount of MRD at the follow-up in AML patients (using FCM events). 166 patients diagnosed as AML between January 2004 and June 2006 in our center was analyzed retrospectively. Median age was 49 years. Male/Female was 104/62. Method: Immunophenotyping at the diagnosis was performed by using the monoclonal antibodies specific for CD45, HLA-DR, CD34, CD33, MPO, CD15(CD16), CD13, CD24, CD11b, CD117, CD64, CD10, CD2, CD19, TdT and (CD4)(CD7). The data were collected in FC500 (Beckman Coulter, France) flow cytometer and were analyzed using the RX-P software program. We usually analyzed approximately 10. 000 cells at the diagnostic samples and at least 500. 000 cells at the follow-up samples for the detection of MRD. The classification of MRD was evaluated in four groups according to Kern et al recommendations (Crit Rev Oncol/Hematol 2005). Results: The diagnostic samples in AML patients for FCM were obtained from bone marrow (n=133) or peripheral blood (n=33). The median value of immature cell ratio was 63 % (21%-98%). We detected leukemia associated IP(LAIP) in one and/or more than one categories at the diagnosis (Table): In summary: The 55 of the diagnostic samples, were positive for cross-lineage expression of lymphoid antigen, 148 show asynchronous expression of antigens, 155 present a lack of myeloid antigen expression and 111 have had myeloid antigen overexpression. The most frequent LAIP in the diagnosis was the persistency of immature myeloid antigen during the maturation (33. 4%) or the lack of expression of myeloid antigen (34. 5%). Only 73 patients were able to be analysed for MRD on day of 14th to 54th following remission induction(RI) therapy. We could not evaluate 17 patients (23%) for MRD at the follow-up in which hematological remission was not achieved after a RI therapy. Eighty-nine percent of 56 patients in the remission had any LAIP permitting for the evaluation of MRD. The amount of MRD was 0. 1% to 10% in different follow-up(F/U) periods. We observed relapse within 6 months in 36% of 55 patients having MRD. Conclusion: We found less myeloid-antigen associated abnormal IP(7. 65%) in the diagnostic samples

compared with the previous published studies(10-24%). However, the ratio of leukemic IP was detected as 92. 6%. Evaluation of MRD with regular F/U of FCM events may allow us to predict the probability of relapse.

Classification	LAIP	The detected parameter	%
Cross-lineage (n=55 patients)	CD2+, CD19+, CD4+, CD7+ etc	61	7. 05
Asynchronous (n=148 patients)	CD117+/34+/33+ ± 13+ -CD11b+/ CD117+/CD34+ -CD34+/CD15+/ CD33+/± CD13+ etc	289	33. 4
Lack of expression (n=patients)	CD15+/CD33+/CD13- -HLA-DR+/ CD34-/CD13+ or CD33+CD11b+/CD24- / CD34+ or CD117+ etc	298	34. 5
Overexpression (n=111 patients)	CD11b-/CD117+/CD34+(+) - CD15+/CD13++/CD33++ -HLA-DR++/CD33++/CD34++ etc	217	25. 1
Total		865	100

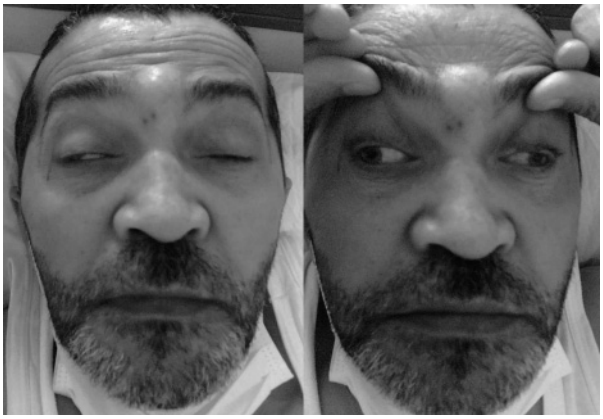
Ref. No: 80 Abstract No: 16

EARLY RECURRENCE OF AN AML-M4 CASE SHOWING NORMAL HEAMATOLOGIC PARAMETERS PRESENTING WITH SOLITARY EYE INVOLVEMENT

[1]Mesut Ayer, [2]Makbule Ulusoy, [2]F. Aylin Ayer, [2]Yeşim Gürkan, [2]Hikmet Feyizoğlu, [2]Namık Yiğit, [2]Zekai Kuyubaşı, [2]Arzu Karaçelik

[1]Haseki Training and Research Hospital, 4th Internal Medicine Clinic, Istanbul, Turkey [2]Haseki Training and Research Hospital, 2th Internal Medicine Clinic, Istanbul, Turkey

Peripherial blood and bone marrow assessments of a 50 yrs old male patient presenting with leucocytosis, anemia and thrombocytopenia in May 2006, revealed 90% of blasts some of which included Auer bodies. Following flowcytometric and cytogenetic[t(15;17)] evaluation the patient was diagnosed as "acute myelomonocytic leucemia" (AML-M4). The patient received 3+7 treatment for remission induction. After attaining remission, 3+7 treatment was repeated in order to achieve consolidation. The patient did not have a suitable HLA donor so discharged from the hospital with a consolidation treatment schedule including high dose of Cytarabine (HiDAC). At the end of the second month pytosis developed at the left eye. Blood count analysis was within normal range. While the patient was waiting for hospitalization pytozis developed at the other eye together with external divergence of the left eye. At the time of hospitalization blood count analysis was repeated and found normal. Bone marrow aspiration analysis revealed 20% of blasts. Cell count, smear and flowcytometric evaluation of cerebrovascular fluid was normal. His eye fundus examination was normal yet involvement of 4th cranial nevre (n. trochlearis) was considered. Orbital MR imaging was normal. Development of an early recurrence was suspected so FLAG-IDA treatment regimen and radiation therapy on the orbital zone was applied. His control bone marrow investigation at the 28th day revealed remission and eye findings totally regressed. FLAG-IDA treatment was repeated for the second time in order to get consolidation. The patient was discharged from the hospital and heamatology outpatient clinic appointments were organized. Low Dose of Cytarabine (LD ARA-C, 20mg/m2/day, 8 days a month) treatment was scheduled but the patient presented with leucocytosis and periphereal blood analysis revealed recurrence at the third week visit. This case report points out the possibility of early recurrence with eye involvement while heamatologic parameters are normal.



eye involvement with presentation of ptosis and strabismus

MOLECULAR HEMATOLOGY

Ref. No: 40 Abstract No: 17

DIFFERENTIAL EXPRESSION OF 16 APOPTOSIS RELATED GENES IN VITAMIN D-INDUCED DIFFERENTIATION OF HL-60 CELLS.

[1]Aylin Kanlı, [2]Hakan Savlı

[1]Kocaeli University Faculty of Medicine Department of Medical Biology, Kocaeli, Turkey [2]Kocaeli University Faculty of Medicine Department of Medical Genetics, Kocaeli, Turkey

Using a quantitative real-time PCR (LightCycler), we analyzed 16 genes (Bcl-2, Bcl-xL, Mcl-1, Bik, Caspase 6, Caspase 7, Cytochrome-c, TNFR1, Myc, TGF-beta, JNK1, p38MAPK, p21, p27, Cdk2, Cyclin E) for changes in expression associated with the apoptosis of human promyelocytic leukemia HL-60 cells induced by 1alpha,25-dihydroxyvitamin D3 at various time points 18, 48 and 72h. Cells were cultured and RNA samples were isolated. Relative quantification data obtained from PCR products of cDNA portions. We did not find distinct down or up-regulated expression profiles at these time points. Findings suggest that there are not clear apoptotic signals in early phases of differentiation and the genes involved in vitamin D-induced apoptosis of HL-60 cells would be more clearly visible after the terminal differentiation process. Apoptosis and cell cycle analysis could be performed in this experimental setting, using quantitative real- time PCR.

Ref. No: 94 Abstract No: 18

CIRCULATING ENDOTHELIAL CELLS IN LEUKEMIC PATIENS WHO HAVE CMV ANTIGENEMIA

[1]İlknur Kozanoğlu, [2]Can Boğa, [2]Hakan Özdoğu, [3]Oktay Sözer, [3]Erkan Maytalman

[1]Baskent University Medical Faculty Physiology Department, Ankara, Turkey [2]Baskent University Medical Faculty Hematology Department, Ankara, Turkey [3]Baskent University Adana Hospital Hematology Research Laboratory, Adana, Turkey

Human cytomegalovirus (HCMV) pathogenesis is dependent on the hematogenous spread of the virus to host tissue. While data suggest that infected monocytes are required for viral dissemination from the blood to the

host organs, infected endothelial cells are also thought to contribute to this key step in viral pathogenesis. Infection of endothelial cells promoted the increased surface expression of cell adhesion molecules (intercellular cell adhesion molecule 1, vascular cell adhesion molecule 1, E-selectin, and platelet endothelial cell adhesion molecule 1), which were necessary for the recruitment of naive monocytes to the apical surface of the endothelium and for the migration of these monocytes through the endothelial cell layer. We aimed to quantitated endotheial progenitor (EPCs) and circulating endothelial cells (CECs) by using flow cytometry in CMV pp65 positive leukemic patients. Detection of CMV pp65 matrix protein in peripheral blood leukocytes by using immunofluorescence assay (Chemicon Internation, a Serologicals Company). All slides are preperated 200. 000 cells and investigated on fluorescence microscope (Eurostar, Euroımmun GmbH, Lübeck, Germany). At this time a panel of monoclonal antibodies, anti CD146 FITC, anti CD 144 PE, anti CD34 ECD, anti CD117 PC5 were used to enumarate CECs and EPCs in CMV pp65 positive patients. Flow cytometric measurement were performed with a FACS calibur flow cytometry (Coulter Epics XL- MLC, Beckman Coulter, Florida, USA) equipped with a 15 mW air-cooled 488-nm argon ion laser. Data were analyzed by using EXPO 32 ADC software. We analyzed CECs and EPCs by flow cytometry in CMV pp65 positive 3 patients (one AML M0, one chronic leukocytic leukemia and one hairy cell leukemia. CMV pp65 positive (40 cells) in AML patient, CECs 30. 540/mL and EPCs 14000/mL. One week later, after antiviral therapy, 100 CMV pp65 positive cells detected while CECs number was 7860/mL and EPCs 4350/mL. On the subsequent week, 5 and 2 CMV positive cells detected on the fluorescence microscope and CECs and EPCs number was decreased. Similar results was shown in CMV positive chronic leukocytic leukemia and one hairy cell leukemia patients (Table1). During the past decade an increasing population of immunosuppressed individuals has resulted in a resurgence of CMV as a major pathogen. Induced immunosuppression has occurred more frequently via chemotherapy and transplant regimens. Detection of blood leukocytes is closely associated with the clinical manifestations of CMV disease and is useful in the diagnosis of CMV infection. We conclued that; CECs and EPCs identification method in peripheral blood of patients with CMV-associated clinical symptoms, as well as the quantification of CEC and EPCs in peripheral blood of patients with pathophysiological manifestations involving endothelial damage that are different from those caused by CMV infections, can be performed. Our observation supported the idea that CECs and EPCs quantit

	CMV pp65(+)	Antiviral therapy	CEC / ml	EPC / ml
Patient 1	40 cells	-	30500	14000
	100 cells	+	7860	4350
	5 cells	+	10260	3400
	1 cell	+	6570	4100
Patient 2	1 cell	-	16800	11230
	0 cell	+	6040	5600
Patient 3	1 cell	-	14900	10900
	0 cell	+	7160	6520

ACUTE MYELOBLASTIC LEUKEMIA

Ref. No: 96 Abstract No: 19

COLONY FORMING ASSAY IN PATIENTS WITH AML M7

[1]İlknur Kozanoğlu, [2]Can Boğa, [2]Hakan Özdoğu, [3]Erkan Maytalman, [3]Nihan Aldırmaz

[1]Baskent University Medical Faculty Physiology Department, Ankara, Turkey [2]Baskent University Medical Faculty Hematology Department, Ankara, Turkey [3]Baskent University Adana Hospital Hematology Research Laboratory, Adana, Turkey

The discovery of the colony-forming capacity of hematopoietic precursor cells 40 years ago has revolutionized experimental, diagnostic and therapeutic hematology. In addition to quantitative abnormalities, cultures can reveal disease-spesific diagnostic growth patterns. They are help in the staging of some hematological disease. In untreated AML, cultures of bone marrow show either no growth, or growth of leukemic cells either in clusters or as single cells. Leukemic growty can be discrete or abundant ; single cells in leukemic clusters sometimes resemble either neutrophils, eosinophils, macrophages or immature erythroblasts according to their line of origin. The typical in vitro growth pattern in AML was observed soon after the discovery of the hematopoietic stem cell. Its association with an unfavorable prognosis, its disappearance in remission and its value in the prediction of relapse are well documented. On the other hand, absence of leukemic growth is an acknowledged good prognostic sing. The aim of our study were to evaulate endogenous colony formation in AML M7 patients. The bone marrow mononuclear cells of 2 patients with AML M7 were cultured by cytokine free methyl cellulose media (Methocult TM GF H4230 – StemCell Technologies, Canada) for endogenous colony evaluation. removed 100 µl blood, counted initial nucleated cell by adding 3% acetic acid and using hemacytometer or counted directly in automated cell counter. Firstly, it was added 1/3 of ficoll and then added 2/3 of blood on the top of ficoll gently. It was santrifugated 400xg for 30 min. It was removed layer of mononuclear cells between sera and ficoll. It was added IMDM containing 2% FCS on the mononuclear cells and resuspended them and santrifugated 400xg for 10 min. It was decanted the supernatant repeat the step above. Decant the supernatant and then resuspended mononuclear cells in the way that cell count is 1-2,5 x 106 by adding IMDM containing 2% FCS (in order to get cell count, perform the step mentioned on the top). It was thawed an alliquot overnight between 2-8 °C. Added 0,3 ml of resuspended cell prepared before. Last concentration was 1-2,5 x 105 cell for per ml. It was vortexed for 15 minutes and let stand for 15-30 min. to allow bubbles. It was dispensed 1. 1 ml of this mixture using syringe and 16-gauge blunt-end needle in to 35 mm culture dishes. Incubate the cells in a 37 °C and 5% CO2, 95% humidified incubator without disturbance during 14-16 day. We enumerated and characterized the colonies according to their morphology with an inverted microscope and a 100 mm culture dish marked with the scoring grid. We showed that, after 14 days of cultures, leukemic clusters and single cells resembling neutrophils, newly diagnosed AML M7 patients. After flowwing remission induction, the leukemic blast colony progenitors declined to undetectable levels and normal erythroid and myeloid colonogenic

progenitors reappeared. AML M7 can be diagnosed easly by flow cytomet

Ref. No: 99 Abstract No: 20

THERAPEUTIC LEUKOCYTAPHERESIS: THE APPLICATION OF RESULTS OF SINGLE CENTER

[1]İlknur Kozanoğlu, [2]Can Boğa, [2]Hakan Özdoğu, [3]Mahmut Kural

[1]Baskent University Medical Faculty Physiology Department, Ankara, Turkey [2]Baskent University Medical Faculty Hematology Department, Ankara, Turkey [3]Baskent University Adana Hospital Apheresis Unit, Adana, Turkey

Therapeutic leukopheresis is one of the recommended treatment modalities in hyperleukocytosis - leukostasis, bleeding disorders related to some subtypes of leukemia and tumor lysis syndrome after chemotherapy. Leukopheresis should be performed if leukocyte count is over 100x109/L in AML and ALL; and over 300x109/L in CML associated with clinical findings of leukostasis. Therapeutic apheresis procedures were performed by using COBE Spectra (Cobe, Lakewood, CO, USA) working continuous blood flow. Between December 2003 and April 2007 total 76 leukopheresis procedures were performed in 43 patients (16 female, 27 male). There were followed up 23 patients with acute leukemia and 20 patients with chronic leukemia. Forty to fifty percent of reduction in leukocyte count in all procedures. All of the patients completed the procedure without any severe adverse events related to the procedure. We did not any severe complication. In certain mostly emergent conditions bedside therapeutic leukocytapheresis is helpful. In conclusion, however a instutitian a dedicated staff and a mobile cell separator for this application are needed.

Ref. No: 111 Abstract No: 21

SUPPORTIVE CARE BY GRANULOCYTE COLONY-STIMULATING FACTOR IN HYPOPLASTIC ACUTE MYELOGENOUS LEUKEMIA

Can Boğa, Hakan Özdoğu, Mahmut Yeral, Ebru Kızılkılıç, Mutlu Kasar

Baskent University Faculty of Medicine, Department of Hematology, Adana, Turkey

Oligoblastic leukemia mostly occurs in elderly patients and appears to proliferate slowly and be characterized by a maturation failure. The standart use of chemotherapy generally is ineffective. Moreover in the majority of the elderely patients, chemotherapy has substantial toxicity. Some report have shown that granulocyte-colony-stimulating factor (G-CSF) has anti-leukemic activity in oligoblastic leukemia. Herein, two elderly patients with oligoblastic acute myeloid leukemia received subcutaneously G-CSF in addition to supportive care. The patients had no multilineage dysplasia and high-risk karyotype. During G-CSF treatment (filgastrim 300 µg/day) absolute neutrophil counts (<0. 5x109/L, for two patients) rose to 1>x109/L, and absolute platelet counts (<30x109/L, for two patients) increased of 20x 109/L or more). A marrow blast clearance (<%5) was not observed in these patients. They were transfusion independence for the first month. However, on the second month of initiating therapy, leukemic cells increased in the peripheral blood. One patient died during treatment after a 6 months due to sepsis. One patient was still on treatment with combination standart induction chemotherapy. In acute myeloid leukemia,G-CSF has been used to reduce the duration of neutropenia after induction or consolidation therapy. Recently, spontaneous complete remission of acute myeloid leukemia has been reported after treatment with G-CSF alone without chemotherapy. The mechanism of action of filgastrim probably is the selective stimulation of normal residual marrow. Hence, filgastrim can be accepted as a part of the supportive care. Our observation was supported this idea.

Ref. No: 114 Abstract No: 22

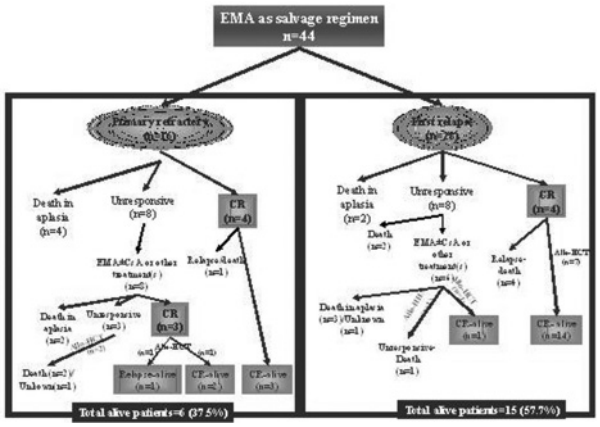
EMA AS SALVAGE REGIMEN IN PATIENTS WITH REFRACTORY/RELAPSE AML: A SINGLE CENTER EXPERIENCE

Pervin Topçuoğlu, Sinem Civriz, Bilge Ceydilek, Meltem Kurt Yüksel, Şule Mine Bakanay, Önder Arslan, Taner Demirer, Akın Uysal, Meral Beksaç, Günhan Gürman, Mutlu Arat, Muhit Özcan

Ankara University, School of Medicine, Ankara, Turkey

In this retrospective study, we evaluated that the effect of EMA as salvage regimen on the short- or long-term outcomes in 44 patients with refractory or relapse AML between March 2003-June 2006. Patients: Median age was 32 years (17-57 years). The ratio of male/female was 27/17. The distribution of the patients according to FAB classification as follows: AML-M0-1: 10; M2: 7, M4-5: 20 and M6: 2; biphenotypic leukemia: 2 and secondary AML: 3. EMA as salvage regimen for induction treatment was given in 16 patients was primary refractory of the induction regimens and 22 patients of first relapse (early relapse within 12 months: 22; Late relapse: 6). EMA treatment protocol: Mitoxantrone, iv daily 12mg/m2/day on day 1 to day 3; Etoposide, iv daily 200mg/m2 on day 8 to day 10; medium dose cytosine arabinoside, continue infusion 500 mg/m2/day from day 1 to day 3 and from day 8 to day 10. G-CSF (Neupogen) daily 5ug/kg by sc route had been given from 12th day until absolute neutrophil count reached above 0. 5x109/L in consequent 3 days. Results: Total six patients died of bacterial or fungal infection at the aplasia period during the induction of EMA. When we evaluated the response in the rest of the patients (n=38), complete remission with EMA was observed in 57. 8% of the patients (n=22) (figure 1). After the EMA treatment, 13 patients received only chemotherapy (n=7) and/or underwent allogeneic hematopoetic cell transplantation (allo-HCT) as a consolidation treatment (n=6). Seventeen of 22 patients being in CR after EMA have currently been in disease-free survival (Mean 22. 8 months; range: 15. 7-30. 6). In 13 of 16 patients with unresponsive of the EMA protocol, EMA±CsA (n=12) or other salvage regimens (n=2) were used again for reinduction, and CR was obtained in only 6 patients (46 %). These 6 patients are still alive in present time, but one of them has relapse disease. When we analyzed the patients as a whole median follow-up period from the diagnosis was 13. 2 months (95% CI: 12. 09-14. 3 months) and the probability of two-year overall survival (OS) was 47. 4%±9. 1. The probability of two-year DFS and OS after EMA treatment were 23. 4%±8,4% and 40. 4%±10. 1%, respectively. When we evaluated the patients in two groups, primary refractory or relapse as indication of EMA use, OS from the diagnosis was significantly shorter in primary refractory group than the relapse group (median 16. 8 months vs 58. 3 months, p=0. 006). After the EMA treatment, these two groups did not lead to a statistical difference on OS (26. 7±13. 8 months vs 10. 7±7. 6 ay, p=0. 326). In conclusion, we observed that the use of EMA as salvage regimen had a

positive effect on DFS and OS from the diagnosis in both primary refractory and relapse patients.



The disease course and survival as the indication of EMA use

Abbreviations: CR: Complete remission; Allo-HCT: Allogeneic hematopoieteic cell transplantation

Ref. No: 116 Abstract No: 23

ACUTE MYELOID LEUKEMIA PRESENTING AS ACUTE INFERIOR MYOCARDIAL INFARCTION

Mahmut Yeral, Mutlu Kasar, Hakan Özdoğu, Can Boğa
Baskent University Faculty of Medicine, Department of Hematology, Adana, Turkey

A 27-year-old man was admitted with retrosternal pain, and sweating lasting 2 hours. Electrocardiography showed signs of acute inferior myocardial infarction. The patient did not report any symptoms or any complain before. He had no history of cardiac disease and he was not family history and he was not smoking. His arterial pressure was 110/70 mmHg and cardiac pulse was 98 per minute. The physical examination was normal. Laboratory tests showed a white blood cell count of 8. 4x109 /L (84% monocyte), platelet count of 106x109 /L and hemoglobin of 11 g/dl. Blood chemistry showed elevated lactic dehydrogenase (280 IU/L), creatine phosphokinase (1120 IU/L), glutamic-oxaloacetic transaminase (52 IU/L) and troponin I (9 IU/L), but no elevation in aPTT, PT and D-dimer. triglyceride, total cholesterol, protein C, protein S and antithrombin 3 was normal. Coronary angiography was performed. This showed thrombotic occlusion of the right coronary artery. Aspiration of thrombus and local t-PA was applied in coronary artery angiography sessions. It was observed normal perfusion of the artery after the procedure. Because of the cytopenia and monocytosis; peripheral blood smear and bone marrow examination was performed. The patient's peripheral blood smear, bone marrow films and flow cytometric examination revealed acute myeloid leukemia FAB M0. Various conditions, such as leukemic infiltration into the myocardium, occlusion of a major coronary artery by leukemic thrombus, effects of the antileukemic therapy (such as chemo therapy, or radiation therapy), hypercoagulable state or hemorrhages in the myocardium or intima of a coronary artery can cause a myocardial infarction in leukemia. In conclusion the reason of coronary artery occlusion in our patient of acute myeloid leukemia remains speculative.

Ref. No: 120 Abstract No: 24

EXPRESSION OF UROKINASE PLASMINOGEN ACTIVATOR RECEPTOR IN ACUTE MYELOID LEUKEMIA

Funda Ceran, Simten Dağdaş, Gülsüm Özet, Mesude Yılmaz, Murat Albayrak, Osman Yokuş, Özlem Şahin Balçık
Ankara Numune Hospital, Ankara, Turkey

Background: Urokinase plasminogen activator receptor (UPAR) is a membrane protein responsible for plasmin expression on cells facilitating cellular extravasations and tissue invasions. Aims: To determine UPAR expression incidence rate by flowcytometry method from patients with acute myeloid leukemia (AML). Methods: This study included 35 patients with AML. A variety of clinical and biological parameters, including phenotype have been examined for potential value in predicting treatment response. The patients characteristics are presented in Table 1. We evaluated the correlation between UPAR and age, sex, organomegaly, CD34, complete remission (CR) rate. Results: The correlation values are presented in Table 2. We have found significant correlation between organomegaly and UPAR. The highest UPAR expression was seen in cases with AML M4 and M5. Summary / Conclusions: We observed a high expression of the UPAR in myelomonocytoid subtypes (M4, M5) in AML. Monocytoid differentiated leukemias are characterized by high rates of extramedullar disseminations. UPA binding to the UPAR initiates the conversion of plasminogen to the protease plasmin, which mediates the extravasion of cells through the endothelium by proteolytic cleavage of endothelium associated adhesion molecules. UPAr expression could play a role in adhesion, migration, and metastasis of leukemic cells. Therefore UPAR is corraleted with organomegaly in AML cases.

Table 1. Patient Characteristics

Age (year, median/range)	53/18-77
Sex (F/M)	15/20
WBC(μl,median/range)	28 100/310-457 000
Hb(gr/dl, median/range)	8,1/4,0-13,0
Plt(μl, (μl,median/range	35 000/7 000-520 000
LDH(U/l, median/range)	352/195-2477
FAB subtype	
M0-M1	14 (%40)
M2	12 (%34,3)
M3	4 (%11,4)
M4	3 (%8,6)
M5	2 (5,7)
CD34(+)	26 (%74,28)
Organomegaly (lymphadenopathy, hepatomegaly, splenomegaly)	13 (%37,14)
CR	11(%57. 89)

Table 2.

	UPAR
Age	p>0,05
Sex	p>0,05
WBC	p>0,05
Hb	p>0,05
PLT	P>0,05
LDH	p>0,05
Organomegaly	P<0,05
CD34	p>0,05
CR	p>0,05

Ref. No: 122 Abstract No: 25

STANDART AND DOSE MODIFIED ARA-C/IDARUBICIN REMISSION INDUCTION THERAPY IN ELDERLY DE-NOVO ACUTE MYELOID LEUKEMIA PATIENTS: A RETROSPECTIVE ANALYSIS FROM "DENIZLI LEUKEMIA-LYMPHOMA-MYELOMA STUDY GROUP" (DLLMSG)

[1]Ali Keskin, [1]Sibel Kabukçu Hacıoğlu, [1]İsmail Sarı, [2]Burcu Yapar, [3]Nilay Şen, [4]Sami Karti
[1]Pamukkale University, Faculty of Medicine, Department of Hematology, Denizli, Turkey [2]Pamukkale University, Faculty of Medicine, Department of Internal Medicine, Denizli, Turkey [3]Pamukkale University, Faculty of Medicine, Department of Pathology, Denizli, Turkey [4]Denizli Education and Research Hospital, Hematology Unit, Denizli, Turkey

Background and Aim: Outcome of patients with acute myeloid leukemia (AML) who are older than 60 years of age remains unsatisfactory, with low remission rates and poor overall survival. Results of standart remission-induction therapy are often derived from studies in younger patients and may not apply to elderly AML. Many investigators and hematologists advocate, at times, only supportive care or frontline single agents, Phase I-II studies, low-intensity regimens, or 'targeted' therapies. However, baseline expectations for outcomes of elderly AML with 'standard' remission-induction therapy are not well defined. "Denizli Leukemia-Lymphoma-Myeloma Study Group" (DLLMSG) was nearly established to register the data of lymphoma and leukemia patients in our city in Western Anatolia. So, we have carried out a retrospective analysis of elderly patients (age>60) with de-novo AML followed at our hematology centers, with the purpose of evaluating the efficacy and toxicity of 'standard' remission-induction therapy with ARA-C/Idarubicin. Patients and methods: A total of 14 patients age > or = 60 years with AML treated with ARA-C (100 mg/m2 intravenous continuous infusion for 5 or 7 days) and idarubicin (12 mg/m2 intravenous short infusion for 2 or 3 days) between 2004 and 2007 were analyzed. Results: Among 14 elderly patients with AML, 6 (43%) were male and 8 (57%) were female. The overall median age was 68 years (range: 60-74). According to FAB classification system, the majority of patients (57%) were M2. Thirteen patients (93%) have standart risk group. Complete response (CR) was achieved in 11 (78. 5%) patients. Grade 3-4 hematologic toxicity was observed in all patients. Duration of leukopenia and thrombocytopenia 14 and 17 days, respectively. Also, the median disease-free and overall survival were 6 and 10 months, respectively. There was one treatment-related death because of severe pneumonia. Conclusion: Standart and dose modified remission-induction therapy with ARA-C and idarubicin might be effective and tolerable regimen in elderly de-novo AML patients with standart cytogenetic risk.

Ref. No: 140 Abstract No: 26

NEPHROTIC SYNDROME AS THE FIRST MANIFESTATION OF ACUTE MYELOGENOUS LEUKEMIA: CASE REPORT

[1]Mohammad Ali Mashhadi, [2]Kourosh Shahraki
[1]Ali Ebne Abitaleb Hospital Zahedan, Iran, [2]Zahedan Medical University, Zahedan, Iran

Introduction: The hematological malignancies associated with nephrotic syndrome are mainly hodgkin's and non-hodgkin's lymphomas and chronic lymphocytic leukemia. Acute myelogenous leukemia (AML) has rarely been described in associated with nephritic syndrome. We report a rare case of Acute Myelogenous Leukemia who presented with nephrotic syndrome. Case report: A previously healthy 62-year-old man was admitted in nephrology ward because of generalized developing pitting edema during last month. Simultaneously, he had generalized itching and urticaria, polyuria, polydypsia and low grade fever but had no history of weight loss, anorexia and sweating. In laboratory tests he had proteinuria above 3. 5 gr/day. Because of anemia, hematology consultation was done. In peripheral blood, there were myeloblast cells in the circulation at a ratio of 15%. Bone marrow aspiration confirmed a diagnosis of AML M, showing hypercellular bone marrow with 80-90% leukemic cells, increased M/E ratio, myeloblast(immature cell, fine chromatin, cytoplasmic bleb) and these abnormal elements: >50% and mature cell about 10%. Unfortunately, we hadn't renal biopsy as a consequent of patient illness and thromboastenia. He received induction chemotherapy, which led to a complete remission and decreasing urinary protein excretion during chemotherapy and no proteinuria at the end of it. Now the patient has received second course of consolidation therapy and remained in complete remission, with no physical and laboratory evidence of proteinuria. Conclusion: It can be concluded that nephrotic syndrome may be additionally associated with AML. In some cases, there is a direct causal effect of the leukemic process on renal function or even pathology, while in others it is exerted indirectly via other complications of the malignancy or the treatment. KEY WORDS: AML, nephrotic syndrome, case report

CHRONIC MYELOID LEUKEMIA

Ref. No: 30 Abstract No: 27

ORAL AND CUTANEUS LICHENOID REACTION SECONDARY TO STANDARD DOSE IMATINIB: A CASE REPORT

Servet Erbaşı, Muhterem Polat, Murat Albayrak, Ferda Artuz, Osman Yokuş, Pınar Öztaş, Funda Ceran
Ankara Numune Hastahanesi, Ankara, Turkey

Chronic Myeloid Leukemia (CML) is a clonal myelopro-liferatif disorder which is the first human malignancy to be associated with a specific genetic lesion,the Philadelphia chromosome,carryingBCR-ABLoncogene. Imatinib(Glivec)is the first molecularly targeted drug developed for CML and has achieved aremarkable success. Cutaneous side effect with this treatment are common(especially with High Doses)but lichenoid reaction drug eruption is rare. Only a few cases of oral and/or cutaneous lichenoid reaction secondary to imatinib have beenreported. We present a 42-years old woman with approximately one year history of CML. She was treated with standard dose Imatinib(400mg). Threemonths after the begining of this treatment,while using the drug,grey-violaceous plaques with a reticular pattern resembling oral lichen planus onboth cheek mucosal surfaces and a disseminatedcutaneous eruption appeared on the trunk,legs andarms and composed of dark purple,prurigenous papules suggestive of lichen planus. The cutaneousand the oral mucosal biopsy confirmed the diagnosis of lichen planus. It is believed that this patient developed imatinib-induced lichenoid eruption;this relationship with therapy rather than the underlying diseas rules out a paraneoplastic reaction and idiopathic lichen planus. Key words: CML,Imatinib,lichenoid eruption

Ref. No: 34 Abstract No: 28

CYTOGENETIC AND CLINICAL FINDINGS OF CHRONIC LYMHOCYTIC LEUKEMIA PATIENTS

[1]Gül İlhan, [1]Neslihan Andıç, [1]Sema Karakuş, [1]Ebru Kızılkılıç, [1]Hakan Özdoğu, [2]Feride Şahin
[1]Baskent University, Department of Hematology, Adana, Turkey [2]Baskent Uiversity, Department of Medical Biology and Genetics, Ankara, Turkey

Chronic Lymphocytic Leukemia (CLL) is the most common form of adult leukemias. Many factors have been identified to determine prognosis in CLL over the past 10 years. Importance of genetic studies has advanced in last few years. Whereas conventional techniques reveals genetical defects in only 40-50% of cases, new molecular techniques such as fluoresan in situ hibridisation (FISH) has provided very important improvements in detecting chromosomal defects. Cytogenetic abnormalities seen in CLL are deletion 13q14 (55% of all cases), deletion 11q (18 %), trisomy 12q (16 %), deletion 17p (7 %) and deletion 6q (6 %). Deletion 11q is related to lymphadenopathy and rapid disease progression. Deletion 17p predicts treatment failure with alchylating agents such as fludarabine and short survival. In CLL cases without Immune globulin variable heavy chain mutation short survival times and rapid disease progression are predicted. Whereas survival times have been found the shortest, only 32 months, in patients with deletion 17q, the longest, 133 months, in cases with deletion 13q. Expression of CD38 is accepted as unfavourable prognostic factor. In this study we aimed to collect cytogenetic analysis results of CLL cases. In our retrospective study we searched the file records of our CLL cases and collected cytogenetic findings and prognostic factors of CLL patients (clinical symptoms, lymphocyte doubling time, bone marrow involvement pattern, serum lactate dehydrogenase (LDH) and beta2 microglobulin (β2M) levels). We obtained the records of 33 CLL patients who had bone marrow aspiration and biopsy between 2002 and 2006. Clinical stages of patients were Rai stage 0 (13 patients, 39,3 %), stage I (4, 12,1 %), stage II (7, 21,2 %), stage III (one, 3 %) and stage IV (7, 21,2 %). One patient (3 %) had transformation to Richter Syndrome from stage II. There were at least one constitutional symptom in 2 patients (15,3 %) with stage 0, in 2 patients (50 %) with stage I, in 3 patients (28,5 %) with stage II, in none of patients with stage III and in 5 patients (71,4 %) with stage IV. Lymphocyte doubling times of 7 (21,2 %) patients were below 12 months. Serum LDH levels were more than normal in 13 (% 39) patients. Serum β2M levels were more than normal in 20 (60 %) patients. Bone marrow biopsy was performed in 22 of patients and among these patients, bone marrow involvement patterns were nodulary in 12 patients (54,5 %), diffuse in 8 patients (36,3 %), nodulary and diffuse in 2 patients (9,2 %). Conventional cytogenetic analysis was used for all the patients. Among the 18 patients only detected with conventional technique, there were normal karyotype in 8, no reproduction in 5, hypodiploidy in 4, and 7q deletion in one patient. Fifteen patients were evaluated with FISH and 13q deletion was detected in 3, 11q deletion in one, normal karyotype was found in 11 of CLL patients.

Ref. No: 48 Abstract No: 29

BOTH KAPPA AND LAMBDA POSITIVE B- CHRONIC LYMPHOCYTIC LEUKEMIA: A CASE REPORT

[1]Servet Erbaşı, [1]Mesude Yılmaz, [1]Gülsüm Özet, [1]Osman Yokuş, [1]Özlem Balçık, [1]Funda Ceran, [1]Aynur Albayrak
[1]ANEAH Hematology, Ankara, Turkey
[2]ANEAH 2. Pathology, Ankara, Turkey

Chronic lymphocytic leukemia(CLL) is acommon lymphoproliferative disease. Most of the cases(95%)have the characteristics of B lymphocytes,and these are clonal diseases due to their light chains. CLL cells are CD5+ CD19+,CD20+,CD23+,CD22 dim+/-,Kappa/orLambda+ immunophenotype. But it was reported that,dual light-chain expression can be possible in some CLL cases. The present 59 years old female case was admitted with complaint of fatigue,sometimes left upper abdominal pains. The duration of the complaints was one year. Physical examination revealed mild anemia,axillary and inguinal palpable small lymph nodes,and splenomegaly(8 cm below the costa). Laboratory findings were as; WBC: 35. 700/microliter, Lymphocyte: 21. 000/microliter Hb: 11,9 gr/dl,Plt: 203. 000/microliter. Blood smear: Mature lymphocytes and basket cells. In flow cytometrical,immunophenotyping of the perpheral blood showed CD5+CD19(+),CD20+,CD23+,CD22(-),both Kappa and Lambda(+)light chain. Altough it is estimated that dual light-chain expression in normal maturing B cells ranges from 0,2%to3,4%,the incidence and extent of dual light-chain expression in B-CLL are unknown. Whether a dual light-chain expressing B-CLL arises from a second rearrangement occuring in a productively rearranged normal B cells those undergo malignant transformation and whether it represents a subtype of B-CLL are not clear. There have been several reports indicating that double light-chain generearrangements or dual light-chain expression can occur in B-cell malign hematolojic disease including CLL. Key words: B-CLL,dual Kappa and Lambda light-chain

Ref. No: 93 Abstract No: 30

GOOD RESPONSE TO FLUDARABINE IN PATIENT WITH T-CELL LARGE GRANULAR LYMPHOCYTIC LEUKEMIA

[1]Mahmut Töbü, [2]Burhanettin Uludağ, [3]Mine Hekimgil
[1]Ege University Hospital, Department of Hematology, Izmir, Turkey [2]Ege University Hospital, Department of Neurology, Izmir, Turkey [3]Ege University Hospital, Department of Pathology, Izmir, Turkey

We presented a case of T-cell large granular leukemia (T-LGL) who gave dramatic response to oral fludarabine treatment. A 58 years old woman admitted to hospital because of fatigue. In 2000, she had diagnosed T-LGL and administered erythropoietin 4000 U/week and oral methotrexate. In January 2005, she applied to our department because of fatigue and abdominal pain. Physical examination revealed pallor, diffuse hepatomegaly (5 cm palpabl) and splenomegaly (7 cm palpabl). Laboratuary values were leucocytes: 3650 cells/mm3, hemoglobin: 7,4 g/dL, platelets: 166000 cells/mm3. Differentiation gave 84 % of lymphocytes, mostly large granular. Bone marrow biopsy revealed 30 % of monoclonal lymphocytes which are CD3, CD8 and CD57 positive, CD20 and CD4 negative demonstrating T-cell large granular leukemia. She was adminestered cyclosporin A(CSA) 5 mg/kg and dose adjusted according to target blood level between 150 to 300 ng/mL. Additionally, granulocyte-colony stimula-

ting factor and erythropoietin were administered. After 2 months, her clinical findings did not improved, only neutrophils increased and splenic irradiation applied. Splenomegaly regressed (5 cm palpabl). CSA and growth factors treatment continued. After six months, splenomegaly (1 cm palpabl) and hepatomegaly (2 cm palpabl) and CBC values improved. Leucocytes: 13400 cells/mm3, hemoglobin: 10,6 g/L, platelets: 198000 cells/mm3. Differentiation gave 88 % of neutrophils, 10 % of lymphocytes and 2 % of monocytes. CSA dose were tapered and discontinued. Because of her clinical picture reappeared, CSA treatment restarted but renal toxicity developed and CSA treatment stopped. She became transfusion dependent. She has adminestered first cycle of treatment of oral fludarabine 40 mg/m2 for 5 days. After four weeks of treatment, organomegaly regressed and CBC normalized. Leucocytes: 6260 cells/mm3, hemoglobin: 14. 1 g/dL, platelets: 122000 cells/mm3. Differantiation gave 82 % of neutrophils, 14 % of lymphocytes and 4 % of monocytes. Second cycle of fludarabine treatment administered. But she developed headache and multipl cranial neuropathy including n. opticus, n. oculomotorious, n. trigeminalis and n. vestibulocochlearis, and her cranial MRI was normal. This multipl cranial neuropathy may be depend on oral fludarabine treatment. It should keep in mind that fludarabine may cause severe multipl cranial neuropathy.

Ref. No: 101 Abstract No: 31

SEVERE NEUROTOXICITY OF CLADRIBINE IN A PATIENT WITH HAIRY CELL LEUKEMIA: A CASE REPORT

Gülten Sop, Zafer Gökgöz, Tuğba Gümüş, Şermin Çoban, Füsun Özdemirkıran
Izmir Training and Research Hospital, Izmir, Turkey

Hairy cell leukemia (HCL) is an indolent chronic B cell lymphoproliferative disorder involving the bone marrow and spleen. Patients with HCL present with peripheral blood cytopenies, splenomegaly and circulating hairy cells. Past a few years cladribine purine analogue has an important role with %90-100 remission rates in HCL treatment. We presented a patient with hairy cell leukemia who developed severe neurotoxicity after cladribine infusion. A 52 years old male patient admitted to the hospital with fatigue, weakness and weight loss continuing for 2 months. On his physical examination; blood pressure was 100/60 mmHg, fever: 36' C, heart rate: 72, cardiovascular and respiratuary systems were normal. Spleen was palpable 10 cm below the costal magrine and hepatomegaly determined. Laboratory findings were as follows: complete blood count; hemoglobin: 11g/dl; hemotocrit: 32 %, wbc: 2500 /mm3, plt: 56000/mm3, erythrocyte sedimentation rate: 10 mm/h. In CT scans: 2 cm diameter bilateral axillar, 4 cm diameter chealiac, peripancreatic, paraaortic and paracaval lymphadenomegalies were observed. We also determined spleen enlargement (long axis was 22 cm) and hepatomegaly before treatment. The diagnosis was established by examining bone marrow biopsy with imunnohistochemical stain. Bone marrow biopsy was examined in Ege University Pathology Department. Hairy cell leukemia infiltration was found, CD20 (+), TRAP (+), CD3 (-), CD 68 (-) and reticulin grade was 2 respectively. Our case received cladribine 0,1mg/kg/day, 7 day duration infusion. Cladribine therapy generally has minimal acute or subacute adverse events. Besides this, moderate bone marrow inhibition is the most common adverse event. One week after the treatment the patient developed neutropenic fever, pulmoner infection, weakness in both legs, short term memory losts, and mislaid ability to walk. Then he received appropriate antibiotic and antifungal therapies. Cranial MRI and EEG was normal but EMG showed early stage axonal degeneration and segmental demyelinization which is significant in lower extremites. These neuropathic findings were interpreted a neurotoxicity of cladribine by the neurologists. 6 weeks after the treatment his general condition became well and laboratory findings regressed. Thorax and abdominal CT scans were all normal. Almost he regained his ability to walk and muscle strength. Our case is in remission hematologicaly but still going on neurology controls. When literatures have reviewed severe neurotoxicity was seen rarely. In National Cancer Institute group 932 cases were treated with cladribine and 26% of these had developed moderate neurotoxicity. Grade 3-4 neurotoxicity had developed only in 10 patients in this serie. We approved to present this case which developed opportunistic pulmoner infection, hemolytic anemia and serious neurotoxicity after stantard dose treatme

Ref. No: 130 Abstract No: 32

POSSIBLE PNEUMOCYSTIS JIROVECI INFECTION IN AN CYTOMEGALOVIRUS POSITIVE CLL PATIENT

Mutlu Kasar, Hakan Özdoğu, Can Boğa, Mahmut Yeral
Baskent University Faculty of Medicine, Department of Hematology, Adana, Turkey

Chronic lymphocytic leukemia (CLL) is the most common form of leukemia in Western countries and mainly affects elderly individuals. Infections are major cause of morbidity and mortality in patients with chronic lymphocytic leukemia. Predisposition to infection in CLL is mediated through various abnormalities including both the impairment of humoral and cellular immunity and further immunosuppression related to the therapy of CLL. Streptococcus pneumonia, staphylococcus aureus, streptococcus pyogenes and herpes zoster-varicella virus are most common infection agents. On the other hand, patients treated with purine analogues apparently have an increased incidence of infection with other opportunistic organisms such as cytomegalovirus, listeria monocytogenes and pneumocystis jiroveci. We are presenting a patient with CLL associated with CMV and pneumocystis jiroveci infection. A 63 year old man with 3 year history of CLL was treated with fludarabine and cyclophosphamide. Because of development of autoimmune hemolytic anemia 2 weeks before admission to our hospital, steroid therapy of 70 mg prednisolone was started. Ten days after second course of fludarabine and cyclophosphamide therapy, he presented with fever. The white count cell on admission was 2. 8 x 109/L (% 30 lymphocytes). Physical examination and chest radiography was normal. Empirical meropenem therapy was started. The patient was unresponsive. Test for CMV pp65 antigenemia was found to be positive. Ganciclovir was started. Five days after ganciclovir therapy, progressive dyspnea occurred. Computed tomographic examination of the thorax revealed consolidation and bilateral pleural effusion. The patient was not tolerated bronchoscopy and empirically high dose co-trimoxazole was added to therapy, the clinical condition of the patient was improved. Atypical double opportunistic infections may see in CLL patients who are treated with purine analogs. Association of these two infections should keep in mind in these patients.

Ref. No: 19 Abstract No: 33

PROMINENT PLEURAL AND PERICARDIAL EFFUSION DUE TO IMATINIB MESYLATE AFTER FIVE YEARS OF THERAPY

Neslihan Andıç, Gül İlhan, Sema Karakuş
Baskent University, Faculty of Medicine, Department of Internal Medicine, Hematology Division, Ankara, Turkey

The signal transduction inhibitor imatinib mesylate, is the superior first line therapy in Philedelphia chromosome positive chronic myeloid leukemia (CML) patients. Data obtained so far has shown that imatinib mesylate can induce hematologic and cytogenic remissions in CML patients in all stages of disease. The drug is generally very well tolerated. The most common side effects are mild nausea, myalgias, edema and diarrhea. The manifacturer suggests, especially patients over 60 and with higher doses of imatinib mesylate unexpected weight gain should be carefully monitorized. Severe fluid retantion was reported %1-2. The mechanism of this side effect is not clear. In the literature there are few cases reporting pleural-pericardial effusions after long term therapy. We describe this uncommon complication in a patient without progression of disease and at the dose of 400 mg imatinib mesylate. A 73 year of female patient admitted to our hospital with chest pain and dispnea. She was diagnosed as Ph-positive CML 5 years ago and she was using imatinib mesylate since then. Before this admission there had been no signs of fluid gain ever. This time she had moderate pericardial effusion (no tamponade) and large pleural effusion. There are no symptoms of infection and no signs of infiltration and pulmonary embolism on the thoracal computarised tomography. Total amount of 1950 cc pleural fluid was drained on two occations. Both were transudative, ADA (adenosin deaminase) level was normal, microscophy showed lymphomononuclear cells and culture was negative. Cytologic evaluation of the liquid did not show any myeloid or blastic cells. Ejection fraction and wall motions of the hearth was normal. No immature myeloid cells were seen on peripheral blood smear and there were no blastic cells in bone marrow sample. Imatinib treatment was discontinued and furosemide was started. Five days after pericardial effusion dissolved. Resolution of pleural fluid lasted four weeks. After one month of clinic stability imatinib was restarted. Until then there is no sign of fluid retantion and the patient is in hematologic remission. In the present case we excluded progression of disease and extramedullary leukemic infiltration. There were no signs of infection and heart failure and other commonly known etiologies for effusions were excluded too. After cessation of imatinib mesylate pericardial effusion dissolved in five days but pleural effusion remained a problem for four weeks. There are case reports which steroids were used in the literature bur for this case furosemide was the only agent used for therapy. To our knowledge this the only case with 400 mg dose after 5 years of therapy. This case reminds that there can always be a risk for serious effusion in these patients even with standart dose. Imatinib can be started again after effusions resolved and may not cause the same clinic ever again. These patients must always be followed for recurrence tough.

Ref. No: 45 Abstract No: 34

THE CLINICAL PRESENTATION AND DIFFERENT BCR-ABL TRANSCRIPTS IN CML

[1]Erhan Alkan, [1]Evren Kiriş, [1]Seray Dizlek, [2]Güçhan Alanoğlu, [1]Nilay Uysalgil, [1]Ayşen Timurağaoğlu
[1]Akdeniz University, School of Medicine, Antalya, Turkey
[2]Süleyman Demirel University, School of Medicine, Isparta, Turkey

The importance of different BCR/ABL transcripts in CML has not been explained exactly yet. It was reported that in almost all CML the breakpoints in the BCR gene are found within the M-bcr. It is also constituted two different transcripts named b3a2 and b2a2 both which encodes p210 protein. The breakpoints in the m-bcr region are rare in CML. Clinically p190+ CML patients have a clinical findings between CML and CMML. The aim of this study was to evaluate the association of BCR/ABL transcripts with the spesific clinical features. Methods: We analysed the p210 and p190 BCR/ABL transcripts of 64 chronic phase CML patients and compared them acoording to their clinical (splenomegaly), laboratory findings [platelets (plt), hemoglobin (hb), white blood cell (WBC) counts] and Sokal score. Fifty one patients expressed p210 (79%), 10 patients had p190 (16%), 3 patients (5%) expressed both p210 and p190 transcripts. The three patients who had both p210 and p190 transcripts all had higher WBC counts and massive splenomegaly. We did the analysis after exclusion of these three patients. We couldn't find significant difference between the study parameters and p210, p190 and both transcripts except WBC. Patients who expressed p210 transcript had significantly higher WBC count (p=0,028) than patients with p190. We then analysed according to b3a2 and b2a2 transcripts. There were 8 patients who expressed both transcripts. No significant difference was found between the p210 transcripts and the study parameters but all of the patients with both transcript had higher WBC count but not significantly. We had only 10 patients with p190 transcript (4 e1a2, 2 e1a3 and 4 both transcripts). WBC count was also tend to be higher in patients with e1a3 and platelets were slightly higher in e1a2 patients. No significant difference was found in Sokal score of patients. As conclusion patients who express p210 transcript tend to have higher WBC count in CML but, the different p210 transcripts do not have an effect on WBC, plt, hb, SM and Sokal score in CML. The significance of p190 and both p210 and p190 transcripts should be evaluated with more patients.

Ref. No: 112 Abstract No: 35

FLAG-IDA IN THE TREATMENT OF REFRACTORY/ RELAPSED ACUTE MYELOID LEUKEMIA: SINGLE-CENTER EXPERENCE

[1]Hakan Özdoğu, [1]Can Boğa, [1]Ebru Kızılkılıç, [2]İlknur Kozanoğlu
[1]Baskent University Faculty Medicine, Department of Hematology, Adana, Turkey [2]Baskent University Faculty of Medicine, Hematology Research Laboratory, Adana, Turkey

Background: We evaluated the efficacy and toxicity profiles of the combination of fludarabine, high-dose cytosine arabinoside (AraC), idarubicin, and granulocyte colony-stimulating factor (G-CSF) in refractory/relapsed acute myeloblastic leukemia (AML) patients. Methods: Between February 2003 and April 2007, 24 AML patients were treated with FLAG-IDA (fludarabine 30 mg/m(2),

AraC 2 g/m(2) for 5 days, idarubicin 12 mg/m(2) for 3 days, and G-CSF 5 micro g/kg from day zero until neutrophil recovery). Results: Eighteen patients were in relapse after conventional chemotherapy including idarubicin 12 mg/m(2) for 3 days and cytarabine 200 mg/m(2) for 7 days, (3+7) protocols. Six patients had refractory disease (after 7 days of standard doses of cytarabine, 3 days of idarubicin) Recovery of neutrophils and platelets required a median of 18 and 21 days from the start of therapy. Complete remission (CR) was obtained in 16 of 24 patients (66. 7%), 8 cases (33. 3%) had resistant to this regimen (RD) and 3 of 24 (12. 5%) died during reinduction therapy: 2 due to sepsis cerebral and 1 due to cerebral hemorrhage. Fever >38. 5 degrees C was observed in 20 of 24 patients (83. 3%), 15 had fever of unknown origin (FUO) and 9 documented infections; 16 of 24 (66. 7%) developed mucositis and 6 of 24 (25%) had grade 2 WHO transient liver toxicity. After achieving CR, 4 patients received allogeneic stem cell transplantation, 4 were judged unable to receive any further therapy, and 3 refused other therapy. Eight patients are at present in continuous CR after a median follow-up of 11 months (range: 2-20). Conclusions: FLAG-IDA is a good choice in cases with refractory/relapsing acute leukemia for salvage chemotherapy. High efficacy and a low-toxicity profile are preferable properties of this regimen, and this regimen has been found to be useful for cytoreduction, especially in candidates for allo-SCT.

Ref. No: 139 Abstract No: 36

CHRONIC MYELOGENOUS LEUKEMIA OCCURRING IN MOTHER AND SON

Cafer Adıgüzel, Işık Kaygusuz, Elif Birtaş Ateşoğlu, Figen Noyan, Mustafa Çetiner, Emel Demiralp, Tülin Fıratlı Tuğlular, Mahmut Bayık
Marmara University School of Medicine,department of Medicine, Division of Hematology, Istanbul, Turkey

Chronic myeloid leukemia (CML) is a clonal hematopoietic stem cell disorder that result from an acquired chromosomal abnormality. Although it is very rare, there have been some case reports showing a family history of CML. Here we present a mother and her son diagnosed with CML one after the other. A 44- year-old woman was admitted to our hospital and diagnosed with chronic phase of CML in March 2005. The sokal score was 2. 02 at admission (High risk group). During her follow-up her son was admitted to our out-patient clinic with the complaints of malaise, 10 kg weigth loss in the last 2 months and abdominal pain on his left upper quadrant. He was also diagnosed with chronic phase CML in May 2005. His sokal score was 1. 02 (High risk group). Therapy was started with Gleevec at a dose of 400 mg once daily. The HLA typing of the patients revealed that they both express HLA-A2, HLA-B37, HLA-Bw4, HLA-Cw6, HLA-DRB1 16, HLA-DQB1 05. There have been reported 16 patients in 7 families diagnosed with CML so far. But HLA typing did not performed to this patients so we don't have knowledge about familial preponderance of CML. There are some studies of HLA types in CML patients. Although it varies in different populations, it has been shown that the frequency of some HLA antigens are increased or decreased. In one study 169 CML patients were evaluated in Turkish population and HLA-B37 which is also expressed in our patients was, detected as a risk factor for CML development and familial transmission in Turkish population.

HODGKIN'S LYMPHOMA

Ref. No: 42 Abstract No: 37

COMPARISON OF BEACOPP AND EVA TREATMENT PROTOCOLS IN REFRACTORY OR RELAPSING HODGKIN LYMPHOMA

[1]Oktay Bilgir, [2]Ferda Bilgir, [1]Mehmet Çalan, [1]Pınar Öner, [3]Esin Kulaç, [1]Murat Akyol, [1]Elif Tuna
[1]Izmir Education And Research Hospital 2nd Internal Diseases Clinic, Izmir, Turkey [2]Buca State Hospital, Internal Diseases Clinic, Izmir, Turkey [3]Kastamonu City Health Center, Kastamonu, Turkey

Objective: Comparison of the two treatment options in refractory and relapsing Hodgkin lymphoma, BEACOPP and EVA chemotherapy protocols, in terms of efficacy and frequency of febrile neutropenia. Methods: Patients refractory to treatment and patient not responding to treatment who have been treated for Hodgkin lymphoma between 1999-2006 were studied retrospectively. Statistical analysis was performed using the EpiInfo version 6 Statcalc software. Chi-Square test was used. Results: A total of 42 patients were studied in the study. All of these patients were found to have advanced stage Hodgkin lymphoma (Stage 3 and stage 4 according to the Ann-Arbor staging system). All of the patients were prescribed 6-8 cycles of ABVD chemotherapy as the first line treatment. Data analysis revealed that the number of patients receiving BEACOPP chemotherapy was 24 (14 males, 10 females), mean age was 33. 2 (26-42), mean duration between the end of ABVD chemotherapy and occurrence of relapse was 17. 4 (6-29) months, and 6 patients were refractory of ABVD chemotherapy. On the other hand, number of patients receiving EVA chemotherapy was 18 (11 males, 7 females), mean age 31. 8 (24-43), mean duration from the end of ABVD chemotherapy and the occurrence of relapse was 19. 2 (7-27) months, and 4 patients were refractory to ABVD chemotherapy. In both treatment protocols, patients were evaluated after the administration of 3 cycles of chemotherapy. Results showed that complete remission was observed in 13 patients (54. 1%) receiving BEACOPP, and partial remission was observed in 6 patients (25%) receiving BEACOPP. Five patients, however, did not respond to treatment (20. 8%). In the patient group receiving EVA chemotherapy protocol, however, complete remission was observed in 4 patients (22. 2%), and partial remission was observed in 4 patients (22. 2%). Ten patients (55. 5%) did not respond to treatment. In both groups patients not responding to treatment were referred to peripheral blood autologous bone marrow transplantation. The treatment protocols of patients with complete and partial remission were continued for 3 more cycles. Patients were re-evaluated after a total of 6 cycles. Analysis of the results of the group receiving BEACOPP showed that complete remission was obtained in 15 patients (62. 5%), partial remission was obtained in 4 patients (16. 6%). In the patient group receiving EVA chemotherapy group, however, complete remission was observed in 5 patients (27. 7%) and partial remission was observed in 3 patients (16. 6%). Febrile neutropenia was established in 11 patients (45. 8%) receiving BEACOPP therapy, and 3 patients (16. 6%) receiving EVA therapy (Table: 1). Table: 1- Patient characteristics and response of chemotherapy protocols. Discussion: EVA and BEACOPP chemotherapies are treatment protocols used in refractory or relapsing Hodgkin lymphoma.

Comparison of the response rates to the administration of these two treatment protocols showed that BEACOP

Patient Demographics	EVA	BEACOPP
Number	18	24
Female Patients	7 (% 38. 8)	10 (% 41. 6)
Male Patients	11(% 61. 1)	14 (% 58. 3)
Complete Remission	5 (% 27. 7)	15 (% 62. 5)
Partial Remission	3 (% 16. 6)	4 (% 16. 6)
Nodular Sclerozing Type	5 (% 27. 7)	6 (% 25)
Lymphocyte-rich Type	2 (% 11. 1)	4 (% 16. 6)
Mixed Type	6 (% 33. 3)	6 (% 25)
Lymphocyte Deficient Type	5 (% 27. 7)	8 (% 33. 3)
Stage 3	8 (% 44. 4)	10 (% 41. 6)
Stage 4	10 (% 55. 5)	14 (% 58. 3)
Number of patients with febrile neutropenia	3 (% 16. 6)	11 (% 45. 8)

Ref. No: 76 Abstract No: 38

HODGKIN'S DISEASE: A RETROSPECTIVE ANALYSIS OF 103 PATIENTS FROM A SINGLE REFERRAL CENTRE

[1]Hava Üsküdar Teke, [1]O. Meltem Akay, [1]Eren Gündüz, [2]Ertuğrul Çolak, [1]Zafer Gülbaş

[1]Osmangazi University Faculty of Medicine, Haematology Department, Eskisehir, Turkey [2]Osmangazi University Faculty of Medicine, Biostatistic Department, Eskisehir, Turkey

A retrospective study was carried out in a group of 103 patients with Hodgkin's disease (HD), 38 females and 65 males, ages 16-82 years (median 39. 5 ± 1. 54), who were treated and followed up in the period between 1986 and 2006 at Hematology Department of Osmangazi University Medical School. The clinical parameters used were sex, age at diagnosis, career, living place, type and number of nodal areas involved (peripheral, mediastinal or abdominal). Laboratory parameters considered include hemoglobin, absolute number of lymphocytes, ESR, serum levels of LDH, AST, ALT, GGT, ALP, fibrinogen and albumin levels, viral markers, blood type, immunoglobulin G, A, M and beta-2 microglobulin levels in addition to thorocal-abdominal computed tomography findings, histologic type, stage and follow-up time. Of patients; 25. 8% were housewives, 17. 2 % were workers, 16. 1% were students, 16. 1% were officers, 10. 8% were retired, 7. 5% were free-workers, and 6. 5% were farmers. 83% of the patients were living in cities while 17% were from countries. Peripheral lymph nodes (cervical, axillary and /or inguinal) were the most commonly involved location. At advanced-stage (III/IV) ESR, LDH, ALP, GGT levels and hypogammaglobulinemia were increased while levels of hemoglobin and albumin were decreased significantly. Patients with advanced-stage were also older than patients with early-stage (I/II). In patients with advanced age sedimentation rate and beta-2 microglobulin were increased and albumin was decreased significantly. Patients in whom abdominal involvement was documented; there was a significant increase in sedimentation rate, beta-2 microglobulin and levels of LDH and ALP while hemoglobin, absolute number of lymphocytes and hemoglobin were found to be significantly decreased. Survival was poor in HD patients with anemia, lymphopenia, thrombocytopenia, hypoalbuminemia and high levels of ALP. 2/71 patients were positive for hepatitis-B virus and direct-coombs positivity was detected in 4/34. Mixed cellular histology was the most common type and at initial presentation 53% of patients were diagnosed in advanced stage (35% stage III, 18% stage IV). In conclusion; mixed cellular histology and advanced-stage at diagnosis are features of Hodgkin's disease in developing countries with a bimodal age distribution. Anemia, hypoalbuminemia, higher levels of sedimentation rate and LDH are markers of advanced-stage and abdominal involvement. Prognosis appears to correlate with levels of hemoglobin and albumin in patients with Hodgkin's disease.

Ref. No: 77 Abstract No: 39

HODGKIN'S DISEASE IN CHILDREN: DEMOGRAPHIC DATA AND RESULTS OF OUR CLINIC

[1]Ferhan Akıcı, [1]Gönül Aydoğan, [1]Zafer Salcıoğlu, [1]Serdar Sander, [1]Deniz Tuğcu, [1]Arzu Akçay, [1]Hülya Şen, [1]Aysel Kıyak, [1]Hüseyin Aldemir, [2]Fulya Yaman

[1]Bakirkoy Women and Children Diseases Education Hospital, Istanbul, Turkey [2]Istanbul University Oncology Institute Division of Radiation Department, Istanbul, Turkey

The epidemiologic pattern of Hodgkin's Disease in developing countries is different when compared with developed countries. In this study conducted between September 1990 and February 2007, the demographic data and results of therapy of 60 patients under the age of 16 years with biopsy-proven Hodgkin's Disease in our clinic are presented. The male female ratio was 2. 5: 1. The median age was 6. 5(3-16)years;73% were younger than 10 years of age. According to the Rye system, 35 cases (58%) were classified as mixed cellularity, 1 (2%) as lymphocyte depleted, 23 (38%) as nodular sclerosis and 1(2%) as lymphocyte predominant type. Four patients (7%) was classified as stage 32(53%) as stage II, 15 (25%) as stage III, 9(15%) as stage IV. Twenty six (42%) patients had B symptoms. Twenty nine (49%) presented with bulky lymph nodes (> 6 cm), 20(33%) with bulky mediastinum. Staging procedures included selective exploratory laparotomy in 10 patients; in 3 of whom, there was a change in the stage. Treatment consisted of two cycles of ABVD chemotherapy for stages I and IIA, four cycles of ABVD for stages IIB and IIIA,six cycles of MOPP/ABV for stages IIIB and IV. All children received involved field radiotherapy of 15 Gy ≤5 years old, 20 Gy if 6-10 years old,25 Gy if ≥11 years old. An additional 5 Gy was given in patients presenting with bulky mediastinum,bulky lymph nodes and in patients in whom a complete response could not be attained following chemotherapy. Six patients relapsed 8, 9, 11, 22, 36 and 98. months after cessation of therapy respectively and are alive after salvage therapy. Fourty-nine of the remaining 60 patients are alive with no evidence of disease, six are lost to follow up and five died due to sepsis or to progression. The 5 year overall survival was 100 % for stages I and II, 90% for stages III and 78% for stages IV respectively. In conclusion,there is a predominance of mixed cellularity subtype,male sex and younger age in our population. Results obtained with a combined modality therapy consisting of chemotherapy, modified according to stage, and low dose involved field radiotherapy are satisfactory.

Ref. No: 102 Abstract No: 40

HODGKIN'S LYMPHOMA: A RETROSPECTIVE ANALYSIS OF 44 PATIENTS

Gülten Sop, Füsun Özdemirkıran, Tuğba Gümüş, Şermin Çoban

Izmir Training and Research Hospital, Izmir, Turkey

Hodgkin lymphoma,first described by Thomas Hodgkin,is a neoplasm of lymphoid tissue. Morphologic and immunophenotypic features can distinguish four subtype of classic hodgkin lymphoma. The incidence is 2-3/100000 per year and there is a bimodal distrubition of hodgkin lymphoma in western countries with two peaks at 15-34 years and over 60 years. The noduler sclerosis subtype predominates in young adults whereas the mixed cellularity subtype is more common in the pediatric population and in older age population. In this study we evaluated retrospectively a total of 44 patients with hodgkin lymphoma were followed in our centre from 1995 to 2005. The mean age of patients was 44,2 years (range 24-72). Twenty-nine patients (66%) were male and fifteen patients (34%) were female. According to histopathologic subtype noduler sclerosis was the most common subtype(52%) and lymphocyte depleted subtype was only (7%). Ann-Arbor classification system was used for staging. Seventeen patients (38%) were stage II, fifteen patients (34%) were stage III, seven patients (16%) stage I and five patients (12%) were stage IV. More than 50% of all patients had B symptoms at presentation. B symptoms were seen at thirtyfive patients (80%) with advanced stage and at nine patients (20%) with localized stage. Peripheral lymphadenomegaly was determined at the majority of patients and cervical involvement was 64%. Splenomegaly was found in 4 patients (9%). 11% of patients had mediastinal lymph node involvement at presentation and were seen the most common in noduler sclerosis subtype. When laboratory findings examined the mean erytrocyte sedimentation rate was 72,2 mm/h, the mean hemogloblin level was 11,1 g/dl and the mean LDH level was 393,5 U/L at presentation. At the same time there was leucopenia in 16% and leucocytosis in 18% of patients. As a first line therapy 80% of patients received ABVD and 14% received MOPP regimen. Three patients with localized stage received radiotherapy. According to histopathologic subtypes there were no differences between the patients in 5 years survival. Survival rates were 76% in patients with localized stage and 33% in patients with advanced stage. This was statistically significant ($p < 0,05$). As a result most of our patients were in advanced stage at presentation. 52% of patients were noduler sclerosis hodgkin lymphoma as were seen most common in young adults.

Ref. No: 136 Abstract No: 41

PULMONARY INVOLVEMENT IN HODGKIN'S DISEASE

[1]Mustafa Yenerel, [1]Serdar Şahinoğlu, [2]Öner Doğan, [1]Reyhan Diz Küçükkaya, [1]Meliha Nalçacı

[1]Istanbul University, Istanbul Faculty of Medicine, Department Of Internal Medicine, Division of Hematology, Istanbul, Turkey, [2]Istanbul University, Istanbul Faculty of Medicine, Department of Pathology, Istanbul, Turkey

We retrospectively reviewed 15 patients (9 female, 6 male) who were diagnosed with stage IV Hodgkin's disease (HD) and parenchymal pulmonary involvement on chest radiograph and computerized tomography scan. Seven patients had also mediastinal involvement and three of them had bone marrow involvement. Median age at diagnosis was 29 years (range 18-64). All of the patients received 6-8 cycles of combined chemoterapy (7 ABVD, 6 MOPP, 2 C-MOPP). None of them received whole lung irradiation but two patients received irradiation to mediastinum and spleen respectively. All the patients except one had completely resolved after 3 cycles of chemotherapy. This particular patient didn't respond to first three cycles of MOPP therapy. His therapy was continued with ABVD chemotherapy without any regression and accepted as refractory. One patient who had received MOPP chemotherapy relapsed after 3 years of remission and second remission was achieved with the same mode of therapy. At the time of analysis, the median follow-up of patients was 4,3 years (range 6 months-29 years). One patient died due to refractory disease. Three patients were alive but we lost follow-up. Eleven patients were in long term remission. The overall survival (OS) was 75% at 10 years from diagnosis. We conclude that the outcome for HD patients defined as stage IV, because of parenchymal lung involvement, is not discouraging and compares favourably with other extra lymphatic organ involvement. Combination chemotherapy is effective in achieving long-term remission and whole lung irradiation is unnecessary.

NON-HODGKIN'S LYMPHOMA

Ref. No: 15 Abstract No: 42

CASE REPORT: MANTLE CELL LYMPHOMA WITH PULMONARY INVOLVEMENT AT PRESENTATION

[1]Serkan Ocakçı, [1]Nur Akad Soyer, [1]Murat Tombuloğlu, [2]Nazan Özhan

[1]Ege University, Department of Internal Medicine, Division of Hematology, Izmir, Turkey [2]Ege University, Department of Pathology, Izmir, Turkey

A 50-year-old man presented with 39 degrees celcius fever, dyspnea, fatigue, weight lose and night sweats was referred to our hospital because that he had marked leucocytosis, 74000/mm^3. His physical examination revealed multiple cervical lymphadenopathies, a right supraclavicular lymphadenopaty, massive splenomegaly, prolonged expiration, widespread rhonchi, and bilaterally basal pulmonary crackles. His hemoglobin level was 8. 4 g/dl and platelet count was 145000/mm^3. Blood smear showed 80% atypical lymphomononuclear cells. A chest radiograph demonstrated a right pulmonary consolidation which was later confirmed as pulmonary nodules and consolidation suggestive of pulmonary lymphoma involvement by chest CT. Patient was diagnosed as mantle cell lymphoma by bone marrow aspiration biopsy and flow cytometry. No clinical or radiological response was seen after empiric antibiotherapy so a bronchoscopy was performed. Bronchoscopy did not show a mass lesion but a transbronchial biopsy showed mantle cell lymphoma involvement. Two cycles of Hyper-CVAD regimen were given. The patient could not tolerate Hyper-CVAD. Six cycles of Rituximab- CHOP regimen were given. Mantle cell lymphoma is an aggressive disease with a poor prognosis. Although systemic involvement frequently occurs in mantle cell lymphoma, primary pulmonary involvement has not been reported so far.

Ref. No: 28 Abstract No: 43

A NON HODGKIN'S LYMPHOMA CASE WITH OVARIAN INVOLVEMENT

Abdullah Hacıhanefioğlu, Naile Gökkaya, Pınar Tarkun, Emel Gönüllü

Kocaeli University, Hematology Department, Kocaeli, Turkey

A 38 years old woman was admitted to our hospital with weakness, loss of appetite, abdominal distention and pain in June 2005. There were symptoms like weakness, loss of appetite, profuse sweating at night, fever, pruritis, abdominal pain and distension at her history. There was no peripheral lymphadenopathy and/or hepatosplenomegaly. In laboratory examination, whole blood count was normal except normocytic anemia (Hb: 11,3 g/dl, HCT: %32). Erytrocyte sedimentation rate was 49 mm/h, C reactive protein was 5 mg/dl. In the biochemical values there were no abnormality except elevation of LDH (LDH: 383 IU/L). The viral markers were negative (HBV, HCV, CMV, EBV). The lesion that is 112x87 mm with heterogen echo and irregular border was found in right adnexial area at pelvic ultrasonography. The thoracal tomography was evaluated as normal. In the abdominal tomography a lesion the 12x10 cm diameter in the left pelvic area was found. There was also lymphadenopathy that is 4x3 cm in diameter with regular border and hypodens in paraaortic area. The patient was operated with diagnoses of over carsinoma by gynecologist and applied salpingoopherectomy + right wedge resection + omentectomi. The pathological report of specimen revealed tight cytoplasm, coarse chromatine and angiosentritic arrangement in places at the tumoral cells. In immunohistochemical study CD 45 RO focal (+) ; CD 3 (-) ; CD 5 (-) ; CD 34 (-) ; HLA DR (-) ; MPO (-) and CD 10 (fokal (+)) was found. These findings made us thinking of B lymphoblastic lymphoma/ leukemia. In bone marrow examination there was not any infiltration of malignant cells and the marrow was normocellular. Hyper – CVAD chemotherapy regimen was begun with the diagnose of stage IE, B lymphocytic lymphoma. After the end of chemotherapy the patient had her first remission and discharged from the hospital. She was periodically controlled but in June 2006, she addmitted to the emergency room with terrible bone pain. A thrombocytopenia (84900) was seen and the other parameters were normal ın complete blood count. Erythrocyte sedimentation rate was 42 mm/ hour and LDH was1230 U/L. In bone marrow examination lymphoblastic lymphoma/ leukemia infiltration was shown this time. Ida-FLAG chemotherapy regimen was given to the patient and at the end of this therapy bone marrow was normal. And she is already is being followed up in our policlinic. DISCUSSION: Primary ovarian lymphoma or secondary ovarian involvement as initial manifestation of lymphoma is rare (1). As in our patient, the most common presenting signs or symptoms of malignant lymphomas involving the ovaries are abdominal or pelvic pain or mass. (1) Malignant lymphoma affecting the ovary can be divided into two types ; primary and disseminated. And most patients with ovarian lymphomas are treated with surgery and chemotherapy. (3). Our case was secondary ovarian involvement and we used firstly the Hyper-CVAD and then FLAG-IDA chemoterapy regimens

Ref. No: 51 Abstract No: 44

A CASE OF PLASMABLASTIC LYMPHOMA TRANSFORMED FROM T CELL LYMPHOMA.

Düzgün Özatlı, Nil Güler, Burcu Çakar, Güzin Gönüllü, İdris Yücel

Ondokuz Mayis University, Samsun, Turkey

Plasmablastic lymphoma is a rare type of non-Hodgkin Lymphoma and mostly associated with HIV infection. We are presenting a case with T cell lymphoma transformed to plasmablastic lymphoma during chemotherapies. Forty-eight years old man was admitted with neck swelling due to solid mass. Pathologic examination showed that normal lymphoid tissue in large areas with various sizes of pleomorfic atypical cells in groups painted positive with T cell (CD 3), diagnosed as high grade T cell lymphoma. CHOP treatment was given and complete remission was achieved after 5th cure. Before 6th cure left submandibuler lymphadenopathies appeared again. Those rapidly proceeded to bilateral conglomerate lymphadenopathies. DHAP treatment was started. The lymphadenopathies regressed within days. Whereas, in a two weeks after the first cure of DHAP, the patient was admitted with dispnea, large mass at neck and high leukocyte counts as 23. 000/μ^3. The mass was rapidly and diffusely growing, which was observed with naked eye within days. The bone marrow aspiration revealed 6 % blast and 22 % lymphoplasmositer cells. The situation was evaluated as blastic transformation. After one cure of Hyper CVAD treatment, the patient was referred to another center for bone marrow transplantation. The peripheral blood smear showed atypical lymphoid cells and rare plasma cells at that time. The new bone marrow biopsy revealed as atypical plasma cells viewed as diffuse plasmocytoid cells. According to these findings, the situation of patient was diagnosed as the plasmablastic lymphoma transformation from T cell lymphoma. VAD treatment was started. The patient's status progressively worsened and died at 8 months after diagnosis. Lymphoma may transform to another form but it generally occurs between in the same type of lymphocyte class. Interesting point for this case the transformation was generating from T cell to B cell. According to literature search this is the first reported case with plasmablastic lymphoma transformed from T cell lymphoma.

Ref. No: 56 Abstract No: 45

INCIDENTAL DIAGNOSIS OF THYROID PAPILLARY CANCER IN A ANGIOIMMUNOBLASTIC LYMPHOMA PATIENT BY FDG-PET

[1]Mehmet Turgut, [1]Müge Karaoğlanoğlu, [1]Burcu Çakar, [1]Recep Semiz, [1]Ayşe Kevser Gökçe, [2]Hakan Göker

[1]Ondokuz Mayıs University, Samsun, Turkey [2]Hacettepe University, Ankara, Turkey

By using positron emission tomography (PET), an increased number of incidental diseases discovered in recent years. Secondary malignancies started to be reported frequently in cancer patients. Here, we are reporting a patient with angioimmunoblastic lymphoma (AILD) who was diagnosed with thyroid papillary cancer during PET scanning for AILD. A 53 year old man who was admitted to our clinic with swelling at his right neck 2 years ago. On his physical examination, there was only submandibulary 2 cm painless, mobile lymphadenopathy. CT showed a 4 cm lymphadenopathy at the anterolateral part of the submandibulary gland, and additionally, a number of lymphadenopathies, the biggest of which was measu-

ring 3 cm at the liver hilus, surrounding the portal vein and pancreatic head. The histopathological examination of excisional submandibulary lymphadenopathy revealed AILD. The stage was IIIA, and CHOP chemotherapy was administered soon. Control CT showed significant reduction in the sizes of the lymphadenopathies, hence AILD was in very good PR. A PET scan was performed in order to detect the possible lymphadenopathies in the abdomen and other regions. His PET scan demonstrated a focally increased FDG at the inferior pole of the left tyroid lobule. Thyroid USG performed, 2 cm and 1 cm hypoechoic view at isthmus and left lobe, respectively. Thyroid fine needle biopsy was performed and revealed suspicious malignancy, and hence a total thyroidectomy performed. The pathologic examination demonstrated papillary carcinoma of the thyroid. There is no clear-cut data for the incidental findings of the secondary cancers. Most data are case reports. As increased number of PET scanning performed, secondary malignancies could be found more frequently. The frequency of thyroid cancer as incidental findings has been reported to be 1% in the published literature. As in our case, we do not have a pretreatment PET scan which prevented us to make a healthy judgement. The another important matter that if a patient PET scan show uptake in thyroid with other regions, it can be related to the primary disease, so secondary malignancies may be overlooked. It is highly probable that most cancer patients die without detecting their secondary malignancies. In conclusion, a positive PET finding in other solid organs in patients with AILD and lymphomas should not only be regarded as the metastasis of the primary malignancy, but also a possibility of a secondary malignancy should be undertaken.

Ref. No: 58 Abstract No: 46

NASAL NK/T CELL LYMPHOMA: CASE REPORT

Arzu Ergen, Barkın Sakallıoğlu, Nergiz Dağoğlu, Yavuz Dizdar, Fulya Yaman Ağaoğlu, Emin Darendeliler
Istanbul University, Medicine Faculty of Istanbul, Department of Radiation Oncology, Istanbul, Turkey

Non-Hodgkin lymphomas originating from nasal cavity,paranasal sinuses and hard plate are a different subgroup of lymphomas. This rare group of lymphomas are characterised with progressive erosive lesion and destruction of bone, cartilage and soft tissue. Our male patient age 52 applied the hospital with sensation of burning in his nose and in his physical examination in ENT policlinic an acneiform lesion beginning to ulcerate and rhinnorea was found. He was diagnosed as maxillary sinusitis,had aspiration and was prescribed antibiotics but after two weeks of antibiotics treatment he did not recover. Later a biopsy was performed from the nasal cavity and he was diagnosed as extra nodal NK/T cell lymphoma (CD3 (+). CD56 (+), CD 45Ro(+), CD 16(+), CD 7(-), CD20(-) and was referred to oncology policlinic. In his CT scan a soft tissue mass was seen in right maxillary sinus extending in right orbit,skin and extra coanal area with concommitting submucosal soft tissue masses in nasopharynx, oropharynx and hypopharynx. As being diagnosed Stage II NHL,CHOP chemotherapy was planned. In his control during the chemotherapy lesions were found to be progressing both on CT scan and clinical examination,he was referred to our department and was treated with 6 MeV photons with a dose of 180cGy daily fractions at total dose of 45 Gy RT in one anterior oblique field. No serious acute reactions were observed during radiotherapy and after the treatment lesions were clinically stable. After a month in his control CT scans a new lesion was found in his tonsil, which was in his previous radiation field and because of this new lesion, second line chemotherapy was planned but at that time his condition deterioated and died before starting his first cycle of chemotherapy. Nasal NK/T cell lymphomas are morphologically,immunephenotypically and genotypically similar to non-nasal extra nodal NK/T cell lymphomas but have an aggressive clinical behaviour. In different clinical trials 5 year overall survival in nasal lymphomas is between %24 and %64. 5 year overall survival in nasal NK/T cell lymphomas is found to be %25 and in non-nasal NK/T cell lymphomas it is %10. Prognosis in NK/T cell lymphomas is poor and more aggressive and effective treatment modalities are needed.

Ref. No: 82 Abstract No: 47

PRIMARY MEDIASTINAL B-CELL NON-HODGKIN'S LYMPHOMA PRESENTED WITH CARDIAC INVOLVEMENT

[1]İnci Alacacıoğlu, [1]Nurhilal Turgut, [1]Güner Hayri Özsan, [1]Özden Pişkin, [1]Mehmet Ali Özcan, [1]Fatih Demirkan, [2]Bahri Akdeniz, [3]Mustafa Seçil, [2]Ömer Kozan, [1]Bülent Ündar
[1]Dokuz Eylül University Faculty of Medicine Department of Hematology, Izmir, Turkey [2]Dokuz Eylül University Faculty of Medicine Department of Cardiology, Izmir, Turkey [3]Dokuz Eylül University Faculty of Medicine Department of Radiology, Izmir, Turkey

Primary mediastinal large B-cell lymphoma (PMLBCL) represents a distinct clinical entity with unique clinicopathologic and genetic features. It accounts for 2% of patients with non-Hodgkin's lymphoma (NHL), is usually limited to the intrathoracic organs, but may spread to visceral organs such as liver, kidneys and the central nervous system. Lymphoma with cardiac involvement is very uncommon and often very difficult to detect while the patient is alive. 64-year-old female patient presented with angina and dyspnea on exertion to emergency room. She was diagnosed as unstable angina pectoris with electrocardiographic and clinical findings. The mass that extended from free wall of right atrium, passing through tricuspid valve, to free wall of right ventricle and constricted the pulmonary valve, another one at left atrium was seen at her transesophageal echocardiography (ECHO). Ejection fraction rate (EFR) was 50%. At her cardiac MRI, the huge mediastinal mass that filled whole mediastinum, encircling main vascular structures, invading cardiac valve and wall, and right pleural effusion were seen. Surgical biopsy by mediastinoscopy revealed the histology of diffuse large B-cell lymphoma. Bone marrow biopsy and abdominal computerized tomography were normal. The patient was put on R-CHOP chemotherapy with near follow-up due to risk of sudden death following rapid tumor regression. Currently, after 2 cycles of chemotherapy all symptoms of the patient disappeared as shown by improved EFR from 50% to 65% on ECHO and re-evaluation by imaging procedures demonstrated good partial remission.

Ref. No: 89 Abstract No: 48

THE ROLE OF RITUXIMAB ON AUTOLOGUS TRANSPLANTATION FOR NON HODGKIN'S LYMPHOMA

Sinem Civriz Bozdağ, Pervin Topçuoğlu, Ender Soydan, Mutlu Arat, Osman İlhan, Haluk Koç, Meral Beksaç, Akın Uysal, Hamdi Akan, Önder Aslan, Nahide Konuk, Muhit Özcan

Ankara University Faculty of Medicine, Ankara, Turkey

High dose chemoterapy and autologus stem cell transplantation is the standart treatment regimen for relapsed non Hodgkin lymphoma(NHL) patients. We aimed to analyze the role of pretransplant rituximab therapy on graft function and outcome of autologus transplantation. After exclusion of T cell Lymphoma and lymphoblastic lymphoma patients,we studied on 68 NHL patients and analyzed pretranplant and posttransplant outcomes retrospectively. Median age was 42 years (17-64), 47 male and 21 female patients included to the study. Seventy percent of patients' histopathology was diffuse large B cell lymphoma. Patients were grouped as those who never treated with rituximab before transplantation and those who had rituximab during salvage treatment or mobilization. Clinical features and transplantation outcomes are shown in the table. Rituximab treatment during pretransplantation period has no significant effect on remission ratios. (p>0. 05). The outcome after transplantation also is also similar in both groups. The median follow up is 52 months for all patients. Also, no significant effect is observed on 2 years disease free and overall survival with rituximab. These outcomes has to be suported with larger prospective randomized trials.

	Rituximab (+) (n: 17)	Rituximab (-) (n: 51)	p
Age (median)	47(20-64)	41(17-54)	
Sex			
Female	9	39	
Male	8	13	
Pretransplant response			
Chemosensitive	12 (70,5%)	30 (58,8%)	0,615
Chemorefractory	5 (29,5%)	17 (41,2%)	
Transplant outcome:			
CR	13 (81,3%)	35 (71,4%)	0,732
PR	1 (6,3%)	5 (8,2%)	
NR	2 (12,5%)	10 (20,4%)	
Relapse posttransplant			
Relapse(-)	13 (76,5%)	26 (81,3%)	0,721
Relapse(+)	4 (23,5%)	6 (18,8%)	
Trans related mortality	3/17	15/36	0,527
2 years disease free survival	51,9%±%6,6	46,9%±7,6	0,494
2 years overall survival	56,3%±%7,7	54,9%±9,3	

Ref. No: 95 Abstract No: 49

FACS ANALYSIS OF PERIPHERAL T-CELL LYMPHOMA

[1]İlknur Kozanoğlu, [2]Can Boğa, [2]Hakan Özdoğu, [3]Oktay Sözer

[1]Baskent University Medical Faculty Physiology Department, Adana, Turkey [2]Baskent University Medical Faculty Hematology Department, Adana, Turkey [3]Baskent University Adana Hospital Hematology Research Laboratory, Adana, Turkey

Peripheral T-cell lymphoma consists of a diverse group of post-thymic tumors bearing a mature T-cell phenotype and, excluding mycosis fungoides, comprises approximately 10-20% of the non-Hodgkin's lymphomas in the United States. This category of non-Hodgkin's lymphomas exhibits considerable morphological, immunological, and clinical diversity and is generally considered to be a high-grade malignancy. Flow cytometry (FC) has become the routine technique in the evaluation of hematopoietic neoplasms. We diagnosed a case of peripheral T-cell lymphoma by using flow cytometry before paraffin-embedded biopsy specimens of lymph nodes. A 32-year-old male presented with fatigue, decreased appetite and multiple lymphadenopathy in his neck. Immunophenotypic analysis of the peripheral blood by flow cytometry demonstrated that the majority of cells were CD4-positive T-cells with a partial loss of CD3 but strongly expressed CD10. After a lenf node pulling and cells isolated, similar results was shown by using flow cytometry. Histopathology revealed a diffuse mixed-cell infiltrate of lymphocytes, histiocytes, and numerous eosinophils, which extended throughout the reticular dermis and into the subcutaneous adipose tissue. Scattered lymphocytes have enlarged, hyperchromatic nuclei. Lymphocytes extend into follicular and sebaceous epithelium but spare the overlying epidermis. Most peripheral T-cell lymphoma are aggressive malignant conditions with only cutaneous anaplastic large-cell lymphoma and mycosis fungoides typically displaying indolent clinical courses. This case demonstrates a rare presentation of peripheral T-cell lymphoma. FACS methodology has the advantage of rapid turn-around time as well as high sensitivity, enabling patients with lymphomas. In experienced hands, flow cytometry plays a valuable and complementary role to histology and immunohistochemistry in diagnosing lymphomas.

Ref. No: 100 Abstract No: 50

ROLE OF HEPATITIS B VIRUS AND HEPATITIS C VIRUS INFECTIONS IN CLINICAL OUTCOMES OF NON-HODGKIN LYMPHOMA

[1]Ramin Yaghobi, [2]Mehdi Roshan Nia Jahromi, [2]Mani Ramzi, [2]Narges Rezaee, [2]Vida Moaied

[1]Shiraz Transplant Research Center, Shiraz, Iran

[2]Hematology-Oncology Research Center, Shiraz, Iran

Background: Non-Hohgkin lymphoma (NHL) is important types of lymphoproliferative disorders and multiple risk factors have different role in NHL presentation. Infections like, Hepatitis B virus (HBV) and hepatitis C virus (HCV) infections may have an effective role in NHL clinical out come. Objectives: In this research for determination the role of HBV and HCV infections in NHL patients, the molecular prevalence of these viruses were studied. Material and Methods: In this retrospective and cohort study, 70 and 100 EDTA treated blood samples were collected for 2 years from NHL patients and healthy control group, respectively and the prevalence of HBV and HCV viral genomes were analyzed. Results: HBV and HCV infections were detected in 14% and 20% of NHL patients, respectively. HCV infection was detected in 7% of healthy control group, but HBV infection was not detected in normal control group. HBV and HCV co-infection also was detected in 5. 7% of NHL patients. Conclusion: For high prevalence of HBV and HCV infections and co-infection in NHL patients, monitoring of these viral infections may have a role in therapeutic management of NHL patients are needed.

Ref. No: 105 Abstract No: 51

LYMPHOMATOID PAPULOSIS: A CASE REPORT AND TREATMENT MODALITIES IN LOCAL THERAPY RESISTANT CASES

Ömer Doğru, Tiraje Celkan
Cerrahpasa Medical Faculty, Istanbul, Turkey

Lymphomatoid papulosis represents a benign, chronic, recurrent, self-healing, papulonodular, and necrotic skin eruption. It is a rare disease; the prevalence is estimated to be 1. 2-1. 9 cases per million population and 10-20% of patients may develop a lymphoid malignancy. We presented three years old boy had been followed up for 18 months at department of dermatology with complaints of erythematosis ulcerative, painful pruritic lesions. Skin punch biopsy revealed lymphomatoid papulosis type A and 60 cures of PUVA light therapy had been applied however no response was observed. The patient was referred to department of hematology and oncology for systemic chemotherapy. There is no curative treatment available for lymphomatoid papulosis and usually managed by observation, intralesional steroid injection, topical bexarotene, imiquimod (Aldara), ultraviolet light therapy, or low-dose methotrexate. Trials with SGN-30 (anti-CD30 mAb) are in progress. We presented this rare case to discuss treatment modalities for local therapy resistant cases.

Ref. No: 119 Abstract No: 52

CLINICAL CHARACTERISTICS AND TREATMENT RESULTS OF PEDIATRIC NON-HODGKIN'S LYMPHOMA

[1]Ferhan Akıcı, [1]Gönül Aydoğan, [1]Zafer Şalcıoğlu, [1]Serdar Sander, [1]Deniz Tuğcu, [1]Arzu Akçay, [1]Hülya Şen, [1]Aysel Kıyak, [1]Hüseyin Aldemir, [2]Öner Doğan
[1]Ministry of Health Bakırköy Women And Children Diseases Education Hospital, Clinics of Pediatric Hematology-Oncology and Pediatric Surgery Istanbul, Turkey, [2]Istanbul University, Division of Pathology, Istanbul, Turkey

Purpose: The aim of this study is to evaluate the clinical characteristics of the non-Hodgkin Lymphoma (NHL) patients and treatment results of modified NHL-90 protocol in our clinic. Methods: From January 1996 to February 2007, 54 newly diagnosed children with NHL wereenrolled. The Murphy classification was used for staging. The patients were stratified into treegroups according to risk factors (stage, LDH, CNS on bone marrow involvement) and treatedeither with a modified NHL-90 (Berlin-Frankfurt-Munster) protocol. The use of 1 gr/m2Methotrexate instead of 5 gr/m2/24hr was the only important modification in BFM-90 protocol. Result: Fifty-four children (16 girls, 38 boys) with a median age of 7 years (range 2-15 years) were treated in our cilinic. Of these patients, 10(18,5%) had T-cell, 41(76%) had B-cell;3(5,5%) had anaplastic Large Cell Lymphoma. There were 3 patients in stage I, 8 in stage II,29 in stage III, 14 in stage IV. In 28 patients the primary tumor was in abdomen, in 9 at the head and neck region, in 9 at thorax, and remaining patients had disseminated disease. Complate remission occurred in 43 patients (80%), partial remission in 8 patients (15%) and progressive disease in 1 patient (2%). Only2 patient died of tumor lysis symptom at prephase. At a median follow up to 54 months (2-135 months) the 5 years overall survival (0S) for all patients was 66%, and event free survival (EFS) was 61%; factors associeted with lower EFS by univariate anlysis were risk groups, and LDH level (500 IU/L). But there was no statistically significant difference (p=0,90) in EFS. The major toxicity were myelosuppression and mucositis, but these conditions were tolerated and manageable. Conclusion: Intensive, short chemotherapy regimen appears to be superior regimen when compared to others regimen. The treatment results in our clinic are comparable to those of BFM group This modified NHL-BFM 90 protocol is very effective for children and adolescent with Burkitt Lymphoma and Large Cell Lymphoma.

Ref. No: 121 Abstract No: 53

CLINICOPATHOLOGIC FEATURES AND TREATMENT RESULTS OF NON-HODGKIN'S LYMPHOMAS IN ELDERLY PATIENTS: A RETROSPECTIVE ANALYSIS FROM "DENIZLI LEUKEMIA-LYMPHOMA-MYELOMA STUDY GROUP" (DLLMSG)

[1]Sibel Kabukçu Hacıoğlu, [1]İsmail Sarı, [2]Sami Karti, [3]Sinemis Yüksel, [4]Nilay Şen, [1]Ali Keskin
[1]Pamukkale University, Faculty of Medicine, Department of Hematology, Denizli, Turkey [2]Denizli Education and Research Hospital, Hematology Unit, Denizli, Turkey [3]Pamukkale University, Faculty of Medicine, Department of Internal Medicine, Denizli, Turkey [4]Pamukkale University, Faculty of Medicine, Department of Pathology, Denizli, Turkey

Background and Aim: Treatment of older patients with non-Hodgkin's lymphoma (NHL) is difficult and conflicting. Lower responsiveness to therapy has been reported; however, the high risk of treatment morbidity, drug-dose reduction, and the occurrence of unrelated deaths might account for the poor outcome of NHL in the elderly. "Denizli Leukemia-Lymphoma-Myeloma Study Group" (DLLMSG) was nearly established to register the data of lymphoma and leukemia patients in our city in Western Anatolia. So, we have carried out a retrospective analysis of Non-Hodgkin lymphomas (NHL) in elderly patients (age>60) followed at our hematology centers, with the purpose of evaluating the clinicopathologic features and treatment results. Patients and methods: Thirty-one elderly lymphoma patients were assessed with regard to their characteristics including age, gender, histologic distribution, stage, extranodal involvement, presenting symptoms, and also treatment responses. Results: Among 31 elderly patients with NHL, 16 (51%) were male and 15 (49%) were female. The overall median age was 68. 5 years (range: 61-87). Clinical presentation was characterized by superficial lymphadenopathy (70. 9%). According to the Ann Arbor staging system, the vast majority of patients (77. 4%) were advanced stage. The patients were classified according to the World Health Organization (WHO) system. The most commonly observed histopathologic type was Diffuse large B-cell lymphoma (DLBCL) were seen in 16 (51. 6%) patients. International Prognostic Index (IPI) scores were high in 13 patients (42%). Extranodal involvement was found in 8 (25. 8%) patients. Majority of patients were treated with with 6-8 cycles of full dose R-CHOP regimen. Drug-dose reduction (25%) were done in 7 patients (22. 6%). Complete remission (CR) was obtained in 19 patients (61. 2%), 5 (16. 1%) of whom relapsed. Grade 3-4 hematologic toxicity was observed in only 16. 1% of cases and there was one treatment-related death because of septic shock. Conclusion: Clinicopathologic features of these patients resembles with younger patients. In addition, full dose R-CHOP regimen were effective and relatively tolerable as well as in younger adults.

Ref. No: 127 Abstract No: 54

ARG: A POTENTIAL BIOMARKER FOR DLBCL STAGING

[1]Mansoor Salehi, [1]Zahra Kabiri, [2]Mohammad Modaresi
[1]Isfahan University of Medical Sciences, Isfahan, Iran
[2]Tehran University of Medical Sciences, Tehran, Iran

ARG is a proto-oncogene and a member of a tyrosine kinase proteins family. It has great importance in many cancers, but there is no conclusive evidence on its role in DLBCL staging. The aim of this study was to evaluate importance of ARG, in this cancer's staging. Sixteen DLBCL and 4 reactive lymph node (as control group) samples, after staging using Ann Arbor staging system, were used in this study. Formaldehyde fixed paraffin embedded blocks were prepared from the samples. After sectioning the samples were hybridized with fluorescently labeled probes against ARG; FITC labeled and GAPDH; Rodamine labeled (as control house keeping gene). After capturing the pictures using CCD camera, the intensity of green and red colures were measured and ratio between green/red, that demonstrate changes in ARG expression, were calculated. The mean ratio of green/red (ARG expression) was significantly different between reactive lymph node, stage I, II and III of DLBCL. ARG expression was different between all groups except for between stage III and VI of DLBCL. The observed changes in ARG expression is a potential biomarker for DLBCL staging. In addition specific inhibitors of ARG can be considered as new chemotherapy agents in DLBCL treatment.

Ref. No: 131 Abstract No: 55

A CASE OF BURKITT'S LYMPHOMA WITH NECROTIZING GRANULOMATOUS REACTION

[1]Evrim Kuş, [1]Cengiz Erçin, [1]Funda Çorapçıoğlu
[1]Kocaeli University, School of Medicine, Department of Pathology, Kocaeli, Turkey [2]Kocaeli University, School of Medicine, Department of Pediatric Hematology-Oncology, Kocaeli, Turkey

Introduction: Burkitt lymphoma is a agressive, heterogenous B cell lymphoma. Burkitt lymphoma related to Ebstein Barr Virus and usually seen in children. Although well recognized in T-cell NHL and Hodgkin's disease, Burkitt lymphoma with granulomatous reaction has been rarely reported in B cell lymphomas. Case Report: An 6-year-old boy presented with lymphadenopathy in head and neck region. The ultrasound and computed tomography procedures revealed a mediastinal mass. A surgical sample from the servical lymph node showed morphologic and immunophenotypic features of Burkitt's lymphoma with large necrosis and granulomatous reaction. In the microscopical examination there was a diffuse infiltrate of atypical lymphoid cells with numerous mitoses and prominent starry-sky pattern because of the presence of multiple tingible body macrophages. Prominent infiltration of epitelioid histiocytes, forming small clusters and granulomas of different size were remarkable. Multinucleated giant cells were identified within granulomas. Discussion: In this study, we present the a case of sporadic Burkitt lymphoma with an extensive epithelioid cell granulomatous reaction. Burkitt's lymphoma with granulomatous reaction has been rarely reported in B cell lymphomas. A granulomatous reaction may also be caused by a concominant infection by m. tuberculosis, yeast, fungi or other microorganisms.

Ref. No: 133 Abstract No: 56

LYMPHOMA EXPERIENCE OF LAKES DISTRICT FROM SÜLEYMAN DEMIREL UNIVERSITY SCHOOL OF MEDICIINE

[1]Güçhan Alanoğlu, [2]Bülent Kara, [2]Sema Sezgin Göksu, [1]Nilgün Kapucuoğlu, [4]Hasan Şenol Coşkun
[1]Suleyman Demirel Universty School of Medicine Dept. of Hematology, Isparta, Turkey [2]Suleyman Demirel University School of Medicine Department of Internal Medicine, Isparta, Turkey [3]Suleyman Demirel University School of Medicine Department of Pathology, Isparta, Turkey [4]Suleyman Demirel University School of Medicine Department of Medical Oncology, Isparta, Turkey

Purpose: Lymphoma is one of the most common cancers in adult patients. Especially Non-Hodgkin's lymphoma incidence is increasing. Neither national nor regional cancer statistic was not reliable in Turkey. Method: We analyzed principle epidemiologic data of patients with malignant lymphoma in Lakes District from Turkey. All patients were adopted from SDU cancer registry data. We analyzed 154 lymphoma patients. Of 154 patients 27 were diagnosed before 2002 when the department of hematology and medical oncology was not established in SDU. Results: We analyzed 154 lymphoma patients of whom 44 were Hodgkin's (HL), 110 were non-Hodgkin's lymphoma (NHL) patients. Median age was 64. 5 (22-82) years for NHL. Sixty patients were male and fifty were female. We had 15 extranodal lymphoma patients. One had multipl extranodal (parotis, terminal ileum, pancreas), 7 gastric, 4 central nervous system, 2 skin, 2 parotid involvement. Sixty percent of the cases diagnosed as diffuse large B cell lymphoma. Most of the patients were at advanced stage when diagnosed, as stage III 29. 9% and stage IV 41%. Most of the cases were put on CHOP (38%) and R-CHOP (48%) protocols as up front treatment. Median age was 46 (18-89) years for HL. Thirty patients were male and 14 were female. Rate of early stage and advanced stage cases were as follows: Stage I+II: 48. 5%, stage III+IV: 51. 5%. Most of the patients were diagnosed as mixed cellularity HL 59. 4%, nodular sclerosis HL 31. 2%. Most of the patients were treated with ABVD chemotherapy protocol (88. 2%). Conclusion: Any effort done to realize cancer status of Turkish cancer population would add more progress to understand the evaluation of cancer in Turkey.

Ref. No: 135 Abstract No: 57

UTILITY OF PERIPHERAL BLOOD FLOW CYTOMETRY TO INVESTIGATE THE PERIPHERIZATION OF B-CELL MALIGNANT LYMPHOMAS

O. Meltem Akay, Eren Gündüz, Hava Üsküdar Teke, Gülcihan Demirel, Zafer Gülbaş
Eskisehir Osmangazi University Medical School Hematology Department, Isparta, Turkey

Aim: To determine the diagnostic value of investigating B-cell clonality by flow cytometric analysis of peripheral blood samples in B-cell lymphomas. Lymphomas are known to have a relatively high rate of peripheral blood involvement as well as lymph node areas, bone marrow and several organs. Methods and results: Blood flow immunophenotyping studies for B-cell clonality were performed in 43 cases who had persistent enlargement of lymph nodes or spleen and 11 healthy adults. The diagnosis included B-cell NHL in 29 cases, T-cell NHL in1 case, Hodgkin's disease in 2 cases and metastasis from solid cancers in two cases. The remaining 7 patients had a variety of nonmalignant diseases. Flow cytometric immunop-

henotyping of an EDTA, anticoagulated peripheral blood was performed in each case, with CD19- PerCp/kappa-fluorescein isothiocynate (FITC)/lambda-phycoerythrin (PE) (Becton Dickinson, Franklin Lakes, NJ, USA). B-cell clonality was determined according to five different patterns: 1. Abnormal kappa/lambda ratio (>3) or lambda/kappa ratio (>2). 2. Abnormal B-lymphocyte subpopulation with different CD19 expression. 3. Abnormal B-lymphocyte subpopulation positive for kappa and lambda on the same cell population. 4. Abnormal B-lymphocyte subpopulation negative for both kappa and lambda on the same cell population. 5. Abnormal CD19 expression(increased or decreased) on B- lymphocytes. We found that 18/29(62%) of patients with B-cell NHL had abnormal findings consistent with B-cell clonality in peripheral blood: 16/29 (55%) had abnormal kappa/lambda ratio, the kappa light chain being dominant in 14; 15/29 (52%) had abnormal CD19 expression, increased CD19 expression being common in 12; 7/29 (24%) had abnormal B-lymphocyte subpopulation negative for both kappa and lambda on the same cell population; 1/29 (3%) had abnormal B-lymphocyte subpopulation positive for both kappa and lambda on the same cell population, and finally 2/29(7%) had abnormal B-lymphocyte subpopulation with different CD19 expression. Kappa/lambda ratio was also higher in patients with B-cell NHL than the patients with other causes of enlarged lymph nodes and spleen (p<0. 001). Interestingly, B-cell clonality was detected by peripheral blood flow cytometric immunophenotyping in three patients who presented with isolated splenomegaly and later diagnosed as B-cell NHL. Conclusions: We concluded that a peripheral blood flow cytometric immunophenotyping study could be used to investigate the peripherization of B-cell lymphomas and abnormal kappa/lambda ratio discriminates B-cell lymphomas from other causes. Investigation of B-cell clonality by peripheral blood flow cytometry is also valuable for the differential diagnosis of splenomegaly in cases of suspected B-cell lymphoma.

Ref. No: 141 Abstract No: 58

EVALUATION THE RESPONSE RATE OF IEV REGIMEN AS SALVAGE THERAPY FOR RELAPSED / REFRACTORY NON-HODGKIN'S LYMPHOMA PATIENTS

[1]Mohammad Ali Mashhadi, [2]Kourosh Shahraki, [3]Adineh Pour

[1]Ali Ebne Abitaleb Hospital, Zahedan, Iran, [2]Zahedan Medical University, Zahedan, Iran [3]Resident of Internal Medicine in Zahedan Medical University, Zahedan, Iran

Aims: Despite advances in the management of aggressive non-Hodgkin's lymphoma, the treatment of relapsed and primary refractory disease remains a major challenge Therapy for relapsed/refractory lymphomas should be based only on drugs not included in the frontline chemotherapy regimens. High-dose chemotherapy or radio-chemotherapy with and without autologus stem cell transplantation is a potentially curative treatment approach. Design and Methods:10 patients with relapsed or refractory non-Hodgkin's lymphomas received Ifosfamide & Mesna 2g/m2 daily for 3 days in combination with epirubicin 100 mg/m2. Day 1 and etoposide 150mg/m2 days 1-3. Of the 10 patients with non-Hodgkin's lymphomas in this study 2 had primarily refractory disease, 8 had developed relapse following primary treatment in less than 6 month. Results: The overall response rate was 90%; it was 50% complete response and 40% partial response. Two proceeded to autologous bone marrow transplantation. Eight patients remain alive in continuous remission with a follow-up of 3-21 months. we treated 10 patients and observed NIH hematotoxicity grade 1 neutropenia (10%) and 4 (40%) grade 1 thrombocytopenia (20%), grade 2 anemia (40%) nausea (100%),fever in 80%,neutropenic fever in 20%,UTI in 30%,pneumonia in 20%,of patients, but improved over the three courses of treatment. There was no major toxicity. Further trials of this regimen in this clinical situation are indicated. Tolerance to the regimen was good. The probabilities of overall survival, and the disease-free survival at end of study were 80%, with duration 13 & 5 months. Additional follow-up is necessary to determine if this improvement in the complete remission rate will confer an increase in the overall survival. Interpretation and Conclusions: Our results indicate the efficacy of the IEV regimen in inducing a good remission rate. IEV is a predictable and highly effective in relapsed/refractory patients with aggressive NHL. Key words: IEV regimen, relapse/refractory NHL lymphoma, salvage therapy

LYMHOPROLIFERATIVE DISORDERS

Ref. No: 110 Abstract No: 59

OPPORTUNISTIC INFECTIONS IN CASES WITH HAIRY CELL LEUKEMIA

Mahmut Yeral, Hakan Özdoğu, Can Boğa

Baskent University Faculty of Medicine, Department of Hematology, Ankara, Turkey

Hairy cell leukemia is a B-cell disease that the abnormal cell has prominent cytoplasmic projections and contains the tartrate-resistant isozyme 5 of acid phosphatase. This cell infiltrates bone marrow, liver and spleen, resulting in organomegaly and pancytopenia. A fewer may be due to the disease as well as infections. Hairy cell leukemia is associated with gram-positive and gram-negative bacterial, atypical mycobacterial and invasive fungal infections. Infection is the primary cause of morbidity and mortality in this disease. In this report we present 7 cases dealt with in the hematology department of Baskent University, from 2004 to 2007. Two of the patients were female and five were male. Average age was 45 years. Two patients were given the interferon therapy as an initial treatment, but they did not tolerate treatment well. One of the patients was performed splenectomy. All patients were given cladribine 0. 1 mg/kg continual infusion for 7 days. In 6 patients, fever episodes were observed. In 3 patients pulmonary infection, in 1 patient tuberculous peritonitis and in 1 patient CMV infection was observed. Pulmonary infections that were seen in 3 patients developed before cladribine therapy. CMV infection was seen a month after and tuberculous peritonitis was seen two month after the therapy. There was a correlation between presence of pre-treatment infection and absolute neutrophil count at time of diagnosis. We observed pneumocystis carinii pneumonia in the patient with the least absolute neutrophil count (120). Pseudomonas aeruginosa and staphylococcus aerius growth was seen on sputum cultures obtained in different times. No febrile episode was seen in the 3 cases with the highest absolute neutrophil count (500-1410) at the time of diagnosis. In 1 patient, pulmonary infection was seen but the case could be easily controlled. In two patients with high absolute leukocyte count at the time of diagnosis, we found CMV infection and tuberculous peritonitis after the treatment process. These opportunistic

infections were thought to be related to lympholytic effect of cladribine. In hairy cell leukemia, infections can be categorized into 2 as bacterial infections and opportunistic infections that are related to impaired cellular immunity. Infections, especially pulmonary infections, are frequently seen in patients receiving cladribine therapy (totally 28%, severe infection 6%). A correlation between low granulocyte count and bacterial infection incidence was reported in previous studies. However, no relation was found between infection and post treatment lymphopenia. Our results are compatible with the literature.

Ref. No: 137 Abstract No: 60

AUTOIMMUNE HEMOLYTIC ANEMIA AFTER CLADRIBINE THERAPY FOR HAIRY CELL LEUKEMIA

Mustafa Yenerel, Esra Hatipoğlu, Abdullah Özkök, Tanju Atamer
Istanbul University, Istanbul Faculty of Medicine, Department of Internal Medicine, Division of Hematology, Istanbul, Turkey

Hairy cell leukemia (HCL) is a rare chronic B cell lenfoprolipherative disease. Because of the clonal malignant B cell proliferation that infiltrates the reticuloendothelial system, particularly the bone marrow, pancytopenia is one of the main laboratory features. HCL is associated with other systemic immunologic disorders including scleroderma, polymyositis, polyarteritis nodosa, erythematous maculopapules, and pyoderma gangrenosum. The most common symptoms and presenting complaints are weakness and fatigue due to anemia. Anemia usually is severe and normochromic-normocytic in character. But, because of the association with immunologic disorders autoimmune hemolytic anemia can also be seen infrequently. The first-line therapy for HCL is 2-chlorodeoxyadenosine (Cladribine). Cladribine is a potent purine nucleoside antimetabolite analogue, structurally related to fludarabine and pentostatin but has a different mechanism of action. Severe bone marrow suppression, including neutropenia, anemia and thrombocytopenia, has been commonly observed in patients treated with cladribine but AIHA is an extremely rare complication. We diagnosed hairy cell leukemia in a 45 year old lady by bone marrow biopsy and pheripheral blood immunophenotyping. She succesfully treated with cladribine as a continuous infusion for 7 days and followed-up without any serious complication. She had to admit to our emergency department with a lumber back pain and hemoglobinuria in 35th days of cladribine therapy and diagnosed acute warm type autoimmune hemolytic anemia. Early bone marrow examination by biopsy performed to see if hairy cell leukemia still persist and revealed normocellular bone marrow with erythroid hyperplasia without any infiltration. We accepted cladribine as a causative agent for this complication. AIHA resolved completely with prednisolon therapy (1mg/kg/day) in 40 days. AIHA induced by purine nucleoside analogues may be severe or even fatal at times and most of the reports are dealing with the fludarabine therapy. Cladribine, like fludarabine, is possibly able to produce this complication during or early after therapy. There are two case reports about the cladribine induced AIHA in the literature. But we have to be aware of the risk of this complication during the use of any purine nucleoside analogue in treating chronic lymphoproliferative disorders.

CHRONIC LYMPHOCYTIC LEUKEMIA

Ref. No: 129 Abstract No: 61

CD4- CD8+ T-CELL PROLYMPHOCYTIC LEUKEMIA: A REPORT OF TWO CASES

Can Boğa, Oktay Sözer, Süheyl Asma, Hakan Özdoğu
Baskent University Faculty of Medicine, Department of Hematology, Ankara, Turkey

T cell-prolymphocytic leukemia (T-PLL) is rare neoplasm usually shows CD4+CD8- phenotype. A new variant of T-PLL showing CD-CD8+ phenotype, a lack of stoplasmic azurophilic granules and NK antigens, nuclear polymorphism, and aggressive clinical course, and death within 20 months was reported for the first time in 1987. We reported here two cases with CD8+ T-PLL presenting with dizziness and weakness, respectevely. On the basis of results of morphologic examination and flow cytometric analysis of the peripheral blood, a diagnosis of T-PLL was made (Table). One of the patients had a history of splenectomy 20 year earlier than admission. The patients followed up without therapy for three and six months, respectevely. The patients showed no progression of their disease while they were under close observation. Our patients were positive for CD7 and negative for HTLV-1 which was ruled out the possibility, adult T-cell leukemia/lymphoma, the lack of stoplasmic granules and NK markers excluded T-cell large granular leukemia, the absence of dermatological findings and positive markers for CD7 and CD8 excluded a diagnosis of Sezary syndrome. Hairy cell leukemia ruled out by flow cytometry. We conclude that it may be difficult to distinguish T-PLL from other lymphoproliferative disease. They may not have always aggressive clinical course

Table. Cases summary

	Initial leukocytes (Lym%)	CD2(%)	CD3(%)	CD4(%)	CD7(%)	CD8(%)	CD10(%)	CD16(%)	CD56(%)	TCRA/B(%)	TCR G/D(%)
Patient 1	109x109/L(79)	98	98	5	82. 6	93	-	0. 3	0. 5	99. 5	0. 5
Patient 2	72x109/L(82)	99	99	3		96	-	-	-	99. 7	-

MULTIPLE MYELOMA

Ref. No: 10 Abstract No: 62

A PROTEAZOM INHIBITOR IN THE TREATMENT OF MULTIPLE MYELOMA: BORTEZOMIB

Özlem Şahin Balçık, Simten Dağdaş, Murat Albayrak, Osman Yokuş, Funda Ceran, Servet Erbaşı, Gülsüm Özet
Ankara Numune Educational and Research Hospital Hematology Department, Ankara, Turkey

Multiple myeloma (MM) is a disease characterised by the proliferation of malignant plasma cells in bone marrow. Although alkylating agents, corticosteroids, antracyclins, vinca alcaloids and thalidomide are used in its treatment, the disease recurs and becomes refractory to treatment. It has been seen that anormal NF-kB signalisation is involved in the pathogenesis of MM and established that this may be inhibited by proteazome inhibitors. Bortezomib is new agent used in MM treatment with this aim. In our clinic, bortezomib was administered to 12 MM cases. The aim of this retrospective evaluation is to evalu-

ate the side effects of bortezomib treatment and establish its efficacy. Mean age of 12 patients (8 male, 4 female) was 60(49-69). Bortezomib was administered as second line treatment in 5 cases, 3rd line treatment in 6 cases and 4th line treatment in 1 case. Bortezomib was administered as single agent to all cases. The dose schedule was planned as follows: maximum 6 courses every 28 days, in each course 1. 3mg/m2 was administered at 1. ,4. ,8. and 11th days. One case died with the presentation of respiratory failure after the second dose and another case died suddenly with an unknown reason after the second course of treatment. Grade 1 neurotoxicity developed in one case, grade 2 in three cases and grade 4 in one case. In grade 1 neurotoxicity, treatment was maintained at the same dose, in grade 4 neurotoxicity treatment was discontinued. In grade 2 toxicity, dose was reduced to 1mg/m2. In one case, allergic reaction and subsequently rash developed in association with treatment and drug was discontinued. Hematological toxicity was observed in no patient. The responses of the cases to treatment were evaluated using the criteria suggested by SWOG and Blade et al. 1 case did not respond to treatment. Minor response was obtained in 2 cases, partial response in 1 case and clinic remisson in 2 cases and complete response in two cases. In conclusion, it has been established that bortezomib is an efficient agent in the treatment of refractory and relapsing multiple myeloma despite its neurological side effects. However, further studies are required with larger patient populations in order to evaluate the efficacy and side effect profile of bortezomib in MM.

Ref. No: 11 Abstract No: 63

GENETIC ABNORMALITIES IN MULTIPLE MYELOMA, THEIR PREVELANCE AND RELATION WITH OTHER RISK FACTORS

Özlem Şahin Balçık, Murat Albayrak, Simten Dağdaş, Funda Ceran, Osman Yokuş, Gülsüm Özet
Ankara Numune Educational and Research Hospital Hematology Department, Ankara, Turkey

Multiple myeloma is disease characterised by the proliferation of malignant plasma cells in bone marrow. Although it always has a similar clinical presentation, prognosis may vary considerably. Upon the development of new treatment approaches in the management of MM, prognostic parameters used to determine treatment options have become inadequate and are influenced from other clinical pathologies accompanying MM. Therefore, it was thought that further prognostic markers are required such as cytogenetic characteristics. The aim of the present study is to determine the frequancy and types of cytogenetic abnormalities in MM cases and their relation with other risk factors. 50 MM cases undergoing treatment in Ankara Numune Educational and Research hospital were included in the study. In addition to clinical and biochemical evaluation, CRP and Beta 2-microglobuline values were measured. Durie-Salmon and ISS stages were determined and cytogenetic evaluation made. In the conventional cytogenetic evaluation of 42 cases, the most frequently observed anomaly was hypodiploidy 52. 4% (22/42), to be followed by in decreasing order of frequancy: near tetraploidy 7. 1% (3/42), hyperdiploidy 2. 4% (1/42), tetraploidy 2. 4% (1/42), del 13q 2. 4% (1/42) and complex karypotype 2. 4% (1/42). In 19% of cases (8/42),other chromosal abnormalities were observed as well: Namely, chtb (7)(q10),-22, -Y, del (17)(p1?3), del (3)(q25). With FISH evaluation of 48 cases, the most frequently observed anomaly was del 13q 37,5% (18/48). In the 29 cases evaluated with FISH; t(11;14) was observed at the rate of 24. 1% (7/29),del 17p 10. 3% (3/29), t(4;14) 3. 4% (1/29), trisomia 11 3. 4% (1/29), trisomia 17 3. 4% (1/29) and CCND1 amplification 6,9% (2/29). It was established that as DS stage increased,DS renal stage and ISS stage increased as well. Since the rate of cytogenetic abnormalities increased as Beta 2-microglobuline level increased, it should be used along with cytogenetic parameters in the determination of prognosis. No relation was found between cytogenetic characteristics (conventional cytogenetics, with FISH del 13q, del 17p, t(4;14), t(11;14), DS stage,DS renal stage and ISS stage, which indicates that cytogenetic characteristics is an independent prognostic factor in MM. High expression of del 13q with FISH and complex caryotype anomaly was found to be associated with unfavorable prognosis. It was also seen that in FISH, 17p and t(11;14) rates increased together with del 13q. In order to evaluate the impact of established cytogenetic characteristics on prognosis, we aimed to follow the cases for at least five years.

Ref. No: 17 Abstract No: 64

TC-99M MIBI OR F-18 FDG IMAGING?: A COMPARATIVE STUDY FOR EVALUATING PATIENTS WITH MULTIPLE MYELOMA

[1]İlknur Ak, [1]İnci Uslu, [2]Zafer Gülbaş
[1]Eskisehir Osmangazi University Medical Faculty Department of Nuclear Medicine, Eskisehir, Turkey
[2]Eskisehir Osmangazi University Medical Faculty Department of Haematology, Eskisehir, Turkey

Background: Both F-18 fluoro-deoxyglucose-PET (FDG-PET) and Technetium-99m sestamibi (MIBI) scans have been reported to identify sites of disease in patient with multiple myeloma (MM), however their relative utility has not been compared outside a few report. Therefore, the purpose of this study was to compare the diagnostic abilities of the MIBI scan and the FDG-PET scan in the evaluation of MM. Materials and methods: A total of 21 patients with MM (mean age: 61. 7±2. 4 years; 7 females, 14 males) were included in the study. Of the 21 patients, 15 were newly diagnosed with previously untreated MM and 6 had relapsed disease after therapy, which was determined by X-ray skeletal survey and hematological/biochemical parameters including complete blood count, liver and kidney function test, erythrocyte sedimentation rate (ESR), serum immunoglobulins, urine light chain excretion, C-reactive protein, ß2-microglobulin, and bone marrow plasma cell infiltration. None of the patients with relapsed disease had undergone chemotherapy or radiotherapy during the 6 months preceding the study. F-18 FDG imaging was performed 1 h following administration of 370 MBq of F-18 FDG using a dual head coincidence mode gamma camera. Whole-body MIBI scans were obtained 20 min following iv. administration of 760 MBq of Tc-99m MIBI. Results: There was a positive correlation between the percentage marrow involvement and the number of sites detected on MIBI (P < 0. 001). No such correlation was seen with the number of sites detected on FDG imaging. In 11 of 21 cases (52%), F-18 FDG scan identified addition known active disease at other sites. Ten cases showed unexpected additional sites in patients thought to have limited/stable disease. In 14 of 21 cases (66%), Tc-99m MIBI identified additional sites of disease not seen on routine skeletal survey. Six of 14 cases had known active disease at other sites. Eight cases showed unexpected additional sites in patients thought to have limited/stable disease. Conclusion: F-18 FDG

imaging and Tc-99m MIBI scintigraphy are useful additional diagnostic tools for detecting otherwise occult sites of involvement by myeloma. However, MIBI imaging can detect more lesions than the FDG scan in patients with MM. The use of MIBI ± FDG imaging should particularly be considered in the evaluation of a patient with presumed limited disease, such as a solitary plasmacytoma, to exclude the presence of other disease sites.

Ref. No: 24 Abstract No: 65

BORTEZOMIB AND DEXAMETHASONE INDUCED TUMOR LYSIS SYNDROME IN A CASE OF PLASMA CELL LEUKEMIA

Gül İlhan, Neslihan Andıç, Sema Karakuş
Baskent University, Hematology Department, Ankara, Turkey

Tumor lysis syndrome (TLS) is a treatment complication which can be life threatining. This syndrome has been reported more commonly in bulky, hyperproliferative malignancies than solid tumors. Because turnover rate of malignant B cells is low, TLS is seen rarely in plasma cell malignancies. Sensitivity to proteosome inhibitors has been demonstrated in a number of malignancies, particularly multiple myeloma. Bortezomib is the first proteasome inhibitor which has been used as second and third line therapy for patients with relapsed or refractory multiple myeloma. Additionally it has been reported as efficient agent for plasma cell leukemia (PCL). We describe the case of a patient with plasma cell leukemia treated with bortezomib and dexamethasone and developed TLS. A 60 years old man presented increase in lymphoplasmocytoid cells in peripheral blood and bone marrow. He was diagnosed PCL and had been given 6 course of Hyper CVAD therapy. He was in remission after 3th cycle and completed 6 course of chemotherapy. After 3 months, increase of lymphoplasmocitary cells detected in peripheral blood smear. Bone marrow aspiration and biopsy showed infiltration of lymphocyte, lymphoplasmocytoid cells and plasmoblasts. We decided to give him bortezomib 1. 3 mg/m2 i. v on days 1, 4, 8, 11 for three cycles. When starting the first cycle of bortezomib, his thrombocyte count was 55 000/mm3. He tolerated therapy well except for thrombocytopenia. Because of thrombocytopenia we decreased the dose of bortezomib to 1 mg/m2. Dexamethasone 40 mg/day i. v was added on days 1, 2, 3, 4 to the second cycle, leading acute biochemical changes indicative of tumor lysis syndrome, acute renal failure and disseminated intravascular coagulation were seen. His leukocyte count decreased from 4000/mm3 to 1500/mm3 too. After 3 course of hemodialysis he recovered. He had partial responce to therapy. We gave only dexamethasone on 1, 2, 3, 4 days as the third cycle because of severe thrombocytopenia and grade 4 neuropathy. TLS has been reported in cases who recieved talidomide, dexamethasone and bortezomib. Only one PCL case who recieved bortezomib has been described with TLS. Because PCL is more rapidly prolipherative disease than multiple myeloma, TLS may be seen in this patients with bortezomib and dexamethasone. Therefore this complication should be looked for during treatment.

Ref. No: 38 Abstract No: 66

SUCCESSFUL TREATMENT OF EARLY RELAPSE OF OCULAR MYELOMA WITH BORTEZOMIB AND STEROID AFTER AUTOLOGOUS STEM CELL TRANSPLANTATION

[1]İrfan Yavaşoğlu, [2]Tolga Kocaturk, [1]Gürhan Kadıköylü, [2]Volkan Dayanır, [3]Yelda Dayanır, [1]Zahit Bolaman
[1]Adnan Menderes University, Medical Faculty, Hematology, Aydın, Turkey [2]Adnan Menderes University, Medical Faculty, Opthalomology, Aydın, Turkey [3]Adnan Menderes University, Medical Faculty, Radiology, Aydın, Turkey

Autologous stem cell transplantation (ASCT) can prolong remission duration, overall and progression free-survival in multiple myeloma (MM). Extramedullary plasmacytomas are rare plasma cell tumours originating mostly from the upper respiratory tract and oropharynx. Ocular relapse is rare in MM. Here we present a patient with only ocular relapsed and without evidence of bone marrow progression after ASCT. Ig A kappa myeloma, stage IIIA was diagnosed to the patient a 53-year-old man, according to Kyle-Greipp and Durie Salmon. He was treated with three courses of VAD (vincristine, adriamycin and dexamethasone) therapy. Then he received high dose melphalan (200 mg/m^2), followed by the ASCT. After two months ASCT, he had bilateral blurry vision, pain, redness in both eyes and diplopia. We detected 5 mm of right-sided proptosis by Hertel exophthalmometry (base 110, 20 mm right eye, 15 mm left eye). Ocular motility of oculus dexter (OD) was restricted in up and lateral gaze. He has diplopia in up gaze. His color vision was 7 of 12 in the right eye and 10 of 12 in the left eye with Ishihara plates. Best corrected visual acuity was 6/10 in the right eye and 7/10 in the left eye. Intraocular pressures were 19 mmHg for OD and 18 mmHg for oculus sinister. Slit lamp biomicroscopy revealed subconjunctival hemorrhages superiorly and temporally in the right eye and bilateral conjunctial hyperemia with chemosis. Fundus examination of both eyes were unremarkable. Computed tomography and magnetic resonance imaging of orbital revealed a right intraorbital extraconal soft tissue density mass that involved the lacrimal gland and lateral rectus muscle. Prednisolon 1mg/kg/day and bortezomib 1. 3 mg/m^2 (1, 4, 8, 11 days) were started to the patient. Eye findings were recovered after one month. Ocular relapse should be considered if there are ocular findings. Bortezomib and steroid may be useful for ocular extramedullary relapse.

Ref. No: 44 Abstract No: 67

COMBINED THERAPY WITH BORTEZOMIB AND DEXAMETHASONE IN PATIENTS WITH RELAPSING MULTIPLE MYELOMA

[1]Oktay Bilgir, [2]Ferda Bilgir, [1]Mehmet Çalan, [1]Pınar Öner, [1]Murat Akyol, [1]Elif Tuna
[1]Izmir Educational and Research Hospital, Izmir, Turkey [2]Buca State Hospital, Internal Diseases Clinic, Izmir, Turkey

Objective: To evaluate the efficacy of bortezomib + dexamethasone combined therapy in patients presenting with relapses after treatment of multiple myeloma. METHODS: Patients with relapsing multiple myeloma who were given bortezomib + dexamethasone between the years 2005-2007 were studied retrospectively. Results: A total of 7 patients were assessed in this study (3 males, 4 females). Mean age of the patients was 59.

1 (54-65 years). All 7 patients included in the study were found to be of stage 3 according to the Salmon-Durie staging. Patients had previously been prescribed VAD chemotherapy and complete remission had been obtained, however relapses developed in these patients after a mean period of 6. 7 (3-10) months. Four cycles of i. v. bortezomib 1. 3 mg/m² (Day 1, Day 4, Day 8, and Day 11) plus p. o. dexamethasone 20 mg/day (Day 1-2, Day 4-5, Day 8-9, Day 11-12) was administered to patients with relapses. Patients were re-evaluated after the 4 cycles. Bone marrow aspiration, serum protein electrophoresis, levels of serum immune globulin, and fixation study in 24-hour-urine specimen were obtained from the patients. Examination results showed that complete remission was obtained in 4 subjects (57. 1%), and partial remission was obtained in 2 subjects (28. 5%). Another patient however (14. 2%), did not respond to treatment, and thus was switched to thalidomide + dexamethasone therapy. This patient went ex 2 months after the onset of thalidomide + dexamethasone therapy. Therapy was continued for 4 more cycles in patients with complete and partial remission and a total of 8 courses of bortezomib + dexamethasone was administered. Patients were re-evaluated after 8-cycles long therapy. The evaluation results showed that complete remission persisted in 4 patients, and that 2 patients with partial remission were still in partial remission after the administration of 8 cycles of therapy. Thalidomide + dexamethasone treatment protocol was initiated in these patients with partial remission. Patients with complete remission have been followed up for a mean period of 12 (11-13) months without any problems arising. Table. 1: Patient Demographics Table. 2: Levels of serum Ig G and gamma band in protein electrophoresis. Discussion: Combined treatment with bortezomib + dexamethasone is a treatment option in refractory or relapsing multiple myeloma patients. The results of our retrospective study revealed complete remission in 57. 1%, and partial remission in 28. 5%. Patients in complete remission have been followed up since 12 months. These results show us that the combined treatment with bortezomib + dexamethasone is an effective treatment option in relapsing multiple myeloma. References: 1. Richardson PG, et al. A phase 2 study of bortezomib in relapsed, refractory myeloma. N Engl J Med. 2003;348: 2609-2617.

Table 1. Patient Demographics

	Sex	Age	Duration of relapse after VAD (months)	VAD chemotherapy	Complete remission	Partial remission	Unresponsive to therapy
1	Male	59	8	+	+		
2	Female	61	5	+		+	
3	Female	55	7	+	+		
4	Female	65	3	+			+
5	Female	62	6	+		+	
6	Male	58	8	+	+		
7	Male	54	10	+	+		

Table 2. Levels of serum Ig G and gamma band in protein electrophoresis

		1	2	3	4	5	6	7
Levels of serum IgG mg/dl	Before treatment	2150	3310	1980	1960	3430	2230	3200
	After treatment with 4 courses of bortezomib	930	1650	870	2150	1730	960	850
	After treatment with 8 courses of bortezomib	820	1610	830	ex	1720	940	820
Gamma band in serum protein electrophoresis %	Before treatment	28	36	25	24	35	23	33
	After treatment with 4 courses of bortezomib	11	19	13	25	20	14	10
	After treatment with 8 courses of bortezomib	8	19	11	ex	19	13	11

Ref. No: 66 Abstract No: 68

BORTEZOMIB EFFICIENCY IN MULTIPLE MYELOMA

Ebru Kızılkılıç, Can Boğa, Hakan Özdoğu, Mahmut Yeral
Baskent University Faculty of Medicine Department of Hematology, Ankara, Turkey

Bortezomib is the first proteasome inhibitor to be used in clinical practice. It has shown significant activity in trials of patients with relapsed or refractory multiple myeloma. In the SUMMIT trial, response rate is 27% relapsed or refractory myeloma patients. The CREST trial showed similar response rate. With the addition of dexamethasone, the overall response rate is higher than monotherapy alone. Bortezomib at dose of 1. 3 mg/m2 was administered as an injection for eight 3-week cycles. Its adverse events including, thrombocytopenia and peripheral neuropathy. We used bortezomib alone or in combination with other agents. Nine multiple myeloma patients were treated. Bortezomib 1. 0 or 1. 3 mg/m2 was administered days 1, 4, 8 and 11 every 21 days for up to 8 cycles and dexamethasone (40mg orally) on days1 through 4 with thalidomide (200 mg orally every day). The patients had a median age of 63 years (range, 46-80). The median number of previous treatment was 3 (2-4). Regimens included bortezomib only in 2 patients, bortezomib plus a thalidomide and dexamethasone in 7 patients. Four patients stopped therapy because of adverse events (neuropathy 3; ürticarial skin lesions 1). The analysis of patient response to therapy revealed a complete response and or near complete response in 2 patients. We have seen partial response in 2 patients and none response in one patient. Our observation may support that treatment of multiple myeloma patients seems to be intolerant bortezomib used in combination with thalidomide.

Ref. No: 67 Abstract No: 69

RETROSPECTIVE ANALYSIS FOR DEMOGRAPHIC FEATURES OF MULTIPLE MYELOMA PATIENTS, AKDENIZ UNIVERSITY EXPERIENCE

Mete Akın, İlknur Nizam, Songul Akcan, Feyzi Bostan, Ihsan Karadoğan, Ayşen Timurağaoğlu, Levent Ündar
Akdeniz University Dept. of Hematology, Antalya, Turkey

Key words: Multipl myeloma, demographic featuresIntroduction: The aim of this study is the retrospective determination of demographical data at the time of diagnosis, first referral clinical characteristics and risk factors for 134 Multiple Myeloma patients with available data records who had been diagnosed, followed and treated at Akdeniz University School of Medicine. Patients and Method: 134 Multiple myeloma patients with available data records, who had been diagnosed based on clinical and laboratory findings, bone marrow

aspiration and biopsy, and radiological examinations of skeleton system, at Akdeniz University School of Medicine Department of Internal Medicine and Department of Haematology, between January 1994 and July 2006 were included into this study. Examinations were carried out retrospectively, based on formal patient files and followup files of Department of Haematology. Findings: Seventy-eight of the patients were male (58%) and 56 of them were female (%42). Male/female ratio was 1,4. Ages of the patients varied between 19 and 90, while the mean age was determined as 60. The highest percent of cases were at the 7th decade (40%). Considering the occupational distribution of the patients, most of them were housewives, officers and farmers (36%, 19%, 16% respectively). Most of the patients referred from town centre (%49). According to body mass index, 53% of patients were over-weight (35%) or obese (18%), 47% of patients had normal weight. The risk factors were, greenhouses for 15%, agricultural disinfection for 13%, story of hair dye use for 9%, history of contact with products of petrol for 1%. The first referral clinics of the patients were, internal medicine for 61 (45%) patients, haematology for 23 (18%) patients, physical medicine and rehabilitation for 9 (7%) patients, orthopedics for 8 (6%) patients, nephrology for 8 (6%) patients, neurosurgery for 7 (5%) patients, chest clinics for 3 (2%) patients and thoracic surgery for 2 (1%) patients. Conclusion: This is a retrospective analysis of data from a single center. With data and findings from our study, we hope to gather data from other centers in order to form Turkiye data at near future.

Ref. No: 68 Abstract No: 70

THE EFFECTS OF PLASMA EXCHANGE ON COAGULATION PARAMETERS, AND PLATELET FUNCTIONS IN PATIENTS WITH MULTIPLE MYELOMA

Ali Şahin, Ali Ünal, Fatih Kurnaz, Leylagül Kaynar, Mehmet Öztekin, Musa Solmaz, Fevzi Altuntaş, Bülent Eser, Mustafa Çetin
Erciyes University, Medical Faculty, Hematology Department, Kayseri, Turkey

Aim: The aim of this study is to investigate the effects of plasma exchange on coagulation parameters,and platelet functions in multiple myeloma patients. Materials (Patients) and Methods: Between February 2004 – July 2006, 10 multiple myeloma patients (male= 6, female= 4) who underwent plasma exchange were included in this study. Coagulation parameters; PT, aPTT, TT, Fibrinogen, AT III, D – Dimer, vWF, Lupus Anticoagulant, Protein C, Protein S, APC Resistance were studied. To determine the platelet functions; Collogen – ADP, Collogen – Epinephrin were performed. Replacement fluids were fresh frozen plasma (FFP), and albumin. Results: FFP was used in 6 patients (60 %), 20 seans (62%). Albumin was used in 4 patients (40%), 12 seans (38%). Significant decrease was detected in D – Dimer levels (p= 0,043) in the sera of the patients who underwent plasma exchange with FFP. After plasma exchange; vW Factor levels decreased significantly (pre-PE: 97,4±25,06/post-PE: 87,61±22,33, p< 0,001), but there was no changes in APC resistance (pre-PE: 2,11±0,49/post-PE: 2,11±0,52, p= 0,236), and Lupus Anticoagulant (pre-PE: 1,04±0,12/post-PE: 0,99±0,13). There was a significant increase in bleeding time with Collogen – ADP (pre-PE: 174,7±72,77/post-PE: 218,5±76,39, p= 0,047), but there was not a significant change in bleeding time with Collogen – Ephinephrin (pre-PE: 199,5±74,81/post-PE: 207,7±60,7, p= 0,603). During 32 seans plasma exchange procedures, urticerial symptoms(n= 12, 37. 5 %); itching, flushing, fever etc. were detected. Hypotension (n= 6, 18. 7%), different arrhytmias (n= 1, 3 %), anaphylactic reactions (n= 2, 6 %), and other complications (paresthesia, shivering, dyspnea etc.) (n= 11, 34. 3%) were observed. There was no serious complication, and there was no plasma exchange related mortality. Conclusion: Plasma exchange lowers D – Dimer levels, vW Factor levels but there is no significant effects on other coagulation parameters. Significant increase in the bleeding time with Collogen – ADP was detected after plasma exchange. Plasmaexchange can be performed safely, and complications can be avoided when plasma components were used as replacement fluids in patients with multiple myeloma. Key Words: Multiple myeloma, plasma exchange, coagulation parameters, platelet functions.

Ref. No: 69 Abstract No: 71

RETROSPECTIVE ANALYSIS FOR CLINICAL AND LABORATORY FINDINGS OF MULTIPLE MYELOMA PATIENTS, AKDENIZ UNIVERSITY EXPERIENCE

Mete Akın, İlknur Nizam, Songul Akcan, Feyzi Bostan, Ihsan Karadoğan, Ayşen Timurağaoğlu, Levent Ündar
Akdeniz University Dept. of Hematology, Antalya, Turkey

Key words: Multiple myeloma, clinical and laboratory findings. Introduction: The aim of this study is the retrospective determination of laboratory data at the time of diagnosis, types of immunoglobulins, first referral symptoms of the patients, stages of disease according to Durie-Salmon and International staging systems for 134 Multiple Myeloma patients with available data records, who had been diagnosed, followed and treated at Akdeniz University School of Medicine. Patients and Method: 134 Multiple Myeloma patients with available data records, who had been diagnosed based on clinical and laboratory findings, bone marrow aspiration and biopsy, and radiological examinations of skeleton system, at Akdeniz University School of Medicine Department of Internal Medicine and Department of Haematology, between January 1994 and July 2006 were included into this study. Examinations were carried out retrospectively, based on formal patient files and followup files of Department of Haematology. Findings: First referral complaints of patients were mostly skeletal pain (waist, dorsum and extremity) and complaints concerning anemia (weakness, fatigue, palpitation, dyspnea) (55% and 31%, respectively). At the time of diagnosis osteoporosis and compression fractures were the most common findings. At the time of diagnosis, 48% of patients had common lytic bone lesions and %31 had no lytic bone lesions. The mean serum calcium, creatinine and haemoglobin levels of patients were 9,8 mg/dl, 2,3 mg/dl and 9 g/dl respectively. When types of immunoglobulins for our cases were examined, it was determined that 59% had IgG, 22% had IgA, 15% had light chain (free kappa and lambda), 4% had nonsecretory, <1% had IgD. When distribution of stages for our patients according to Durie-Salmon staging system was evaluated, 7% were at stage 1, 23% were at stage 2, 70% were at stage 3. 67% of all cases were at subgroup A, 33% were at subgroup B. According to International Staging System, 27% of patient were at stage 1, 31% were at stage 2 and 42% were at stage 3. Conclusion: This is a retrospective analysis of data from a single center. With data and findings from our study, we hope to gather data from other centers in order to form Turkiye data at near future.

Ref. No: 73 Abstract No: 72

MICROSATELLITE INSTABILITY IN PATIENTS WITH MULTIPLE MYELOMA

[1]Ayşen Timurağaoğlu, [1]Evren Kiriş, [1]Sema Demircin, [1]Seray Dizlek, [2]Güçhan Alanoğlu, [1]Nilay Uysalgil
[1]Akdeniz University, School Of Medicine, Antalya, Turkey [2]Süleyman Demirel University, School Of Medicine, Isparta, Turkey

Chromosome 14 abnormalities -mostly translocations- are nearly seen 50 percent of multiple myeloma (MM) patients and these abnormalities are important in the pathogenesis of MM. Genomic instability is a characteristic of tumor cells. Microsatellites are short, tandemly repeated DNA sequences located in genomes. Microsatellite instability (MSI) is the other form to show alterations of DNA mismatch repair system which leads to replication errors. In this report we examined the microsatellite instability in patients with MM in order to point to genomic instability in chromosome 14 and we also analysed 4 different STR locus which are located on different genes. We also compared them with clinical stage and Ig type of disease. We selected 5 different STR loci of chromosome 14 (14q32) and 4 different STR markers named CSF1PO (5q33. 3-34), TH01 (11p15. 5), TPOX (2p25. 1-pter), vWA (12p12-pter) [Promega Corporation] which are located on different chromosomes. Twenty-six patients were included into the study (10 female, 16 male, mean age 63 year). Seven patients diagnosed as stage one, 7 patients stage two, 12 patients were stage 3. According to Ig type 15 patients had IgG, 5 patients IgA, 5 patients had light chain disease and one had non secretory MM. DNA was extracted from the bone marrow plasma cells after the separation procedure with CD138 magnetic beads (Syndecan-1, Miltenyi Biotec) from the residuel bone marrow cells and hair DNA was used as control. One of the each pair of PCR primers was fluorescent labeled. Amplified PCR products were run on automatic DNA sequencer (ABI 310, Applied Biosystems) and analyzed using the Genotyper software. MSI was detected in 54% of multiple myeloma patients. Thirty two per cent of patients in D14S65 locus, 25% D14S272, 20% D14S292. Patient samples were also analyzed according to MSI scoring system and 19% had high instability, 35% had low instability 46% of patients had stability at all the loci tested. Sixty per cent of IgG MM had MSI in at least one locus and 27%of all IgG MM patients had high instability, 33% had low instability. We could not find any significant effect of MSI on clinical stage of disease. Five patients with light chain myeloma did not display any abnormality. We could not detect any abnormality on CSF1PO, TH01, TPOX, vWA genes which are located on different chromosomes. As conclusion in present study we showed that MSI is a common finding in MM patients who have heavy chain monoclonal protein especially in chromosome 14q32 region which we know that Ig Heavy chain is being encoded and according to our findings we can also suggest that the molecular defects on this chromosome may lead the malign transformation in MM.

Ref. No: 75 Abstract No: 73

AN UNUSUAL PRESENTATION OF MULTIPLE MYELOMA: PLASMACYTIC ASCITES COMPLICATED BY DUODENAL INVOLVEMENT

[1]O. Meltem Akay, [1]Barış Cansu, [2]F. Mustafa Açıkalın, [3]Emre Entok, [1]Zafer Gülbaş
[1] Osmangazi University Faculty of Medicine, Department of Haematology, Eskişehir, Turkey [2]Osmangazi University Faculty of Medicine, Department of Pathology, Eskişehir, Turkey [3]Osmangazi University Faculty of Medicine, Department of Nuclear Medicine, Eskişehir, Turkey

Extramedullary plasmacytomas are rare, and mostly occur in the upper respiratory tract. Gastrointestinal involvement occurs in only 5% of patients with extramedullary involvement which includes the stomach most frequently, followed by the jejunum, ileum, colon, rectum, and rarely the duodenum. Peritoneal involvement in multiple myeloma is equally rare. We describe a case of 67-year-old man with Dune-Salmon stage IIIA immunglobulin A-kappa multiple myeloma, which presented with tense ascites. Abdominal paracentesis revealed atypical plasma cells positive for CD38/CD138 which was confirmed by the presence of a monoclonal peak in the ascitic fluid by protein electrophoresis. The patient's later course was complicated by gastrointestinal bleeding from a large ulcerated mass localized in the first portion of the duodenum. Biopsy of the duodenal ulcer showed marked monoclonal plasma-cell infiltration by immunohistochemistry. PET study was also peformed and high F-18 FDG uptake was noted in the tumor. The patient was successfully treated for bleeding with conservative measures and later underwent VCMP(vincristine, cyclophosp hamide,melphalan,prednisolone) chemotherapy protocol. Extramedulary spread of multiple myeloma occurs more frequently than is currently recognized. Gastrointestinal involvement may occur soon after the initial diagnosis of multiple myeloma and may be of serious clinical consequence. Failure to recognize myelomatous involvement of gastrointestinal tract may result in achieving inappropriate treatment modalities of surgery, radiotherapy and/or chemotherapy

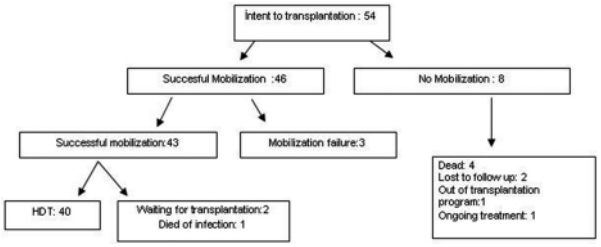
Ref. No: 79 Abstract No: 74

TIME INTERVALS PRECEEDING AUTOLOGOUS STEM CELL TRANSPLANTATION (SCT) IN MULTIPLE MYELOMA PATIENTS: A SINGLE CENTER INTENT TO TRANSPLANT ANALYSIS

Mutlu Arat, Merih Kızıl Çakar, Ender Soydan, Pervin Topçuoğlu, Aynur Uğur Bilgin, Şule Mine Bakanay, Erol Ayyıldız, Önder Arslan, Muhit Özcan, Günhan Gürman, Meral Beksaç, Osman İlhan
Ankara University, School of Medicine, Department of Hematology, Ankara, Turkey

Introduction&Aim: Hematopoiteic SCT activity is less than expected in our country according to 2004 European Activity Survey (1-50/10 million populations). In developing countries many referral centers are facing the problem of having extended waiting lists for transplant candidates. As a referral center with a performance of more than 100 transplants/year we aimed to analyze our kinetics within newly diagnosed myeloma patients under the age of 67, who are de novo transplant candidates. The transplant intervals are calculated in three periods; time from the diagnosis to the PBSC mobilization (tDxMob), time from mobilization to high dose therapy (HDT) (tMobTx) and time from diagnosis to HDT (tDxTx).

Patients: Fifty four multiple myeloma patients under age of 67 admitted to our center between Jan 2004 to Apr 2006 were included into study in intent to transplant approach. The median age was 55 years (32-66 ys) with M/F ratio of 45/15. Results: Autologous SCT candidates (n=43) were followed up for median 18. 4 months (1. 5-31. 7 ms). Forty nine patients were treated with VAD regimen and 5 patients received thalidomide plus dexametasone as first line therapy. After the first line treatment, mobilization was performed in 46 patients (85%) and mobilization (>2x106/kg CD34+ cells/patient weight) was successful in 43 patients (79. 6%). The median tDx-Mob was 7. 6 months (2. 8-27. 3 ms). Fourty patients (74%) received HDT supported by auto-PBSC rescue. We calculated intervals for tDxTx and tMobTx as median 11. 7 months (4. 6-29. 5 ms) and median 2. 9 months (0. 6-10. 2 ms), respectively. Two patients were still waiting for HDT. Unfortunately we have lost a patient, who had been successfully mobilized but died following pulmonary infection before HDT. Eight patients did not enter the mobilization program due to these reasons: Four of them died during primary treatment, two were lost to follow up, another patient is still on treatment and one patient is taken out of the transplant program. Conclusion: In this pilot single centre intent to transplant analysis, we were able to successfully mobilize 85% of the patients. Seventy-nine percent of the patients and 93% of successfully mobilized patients have received HDT. The effects of the deviations of these intervals on the disease free and overall survival are in further evaluation. This analysis will help us on quality control processes and patient management.



Ref. No: 81 Abstract No: 75

MULTIPLE MYELOMA WITH MASSIVE ASCITES: A CASE REPORT

Nurhilal Turgut, İnci Alacacıoğlu, Özden Pişkin, Selda Ceneli, Güner Hayri Özsan, Fatih Demirkan, Mehmet Ali Özcan, Bülent Ündar

Dokuz Eylul University Faculty of Medicine Department of Hematology, Izmir, Turkey

Ascites is a rare complication of muliple myeloma and may occur either at presentation or more often during the disease course. Most reported cases have been associated with Ig A type of myeloma. Herein, ascites as the presenting feature of multiple myeloma of the Ig G type was described. A 40-year-old female patient was admitted for the investigation of ascites and hip pain and was diagnosed as Ig G κ type multiple myeloma. Abdominal paracentesis revealed transudative fluid containing myeloma cells and immunofixation analysis of fluid was positive for Ig G κ consistent with her diagnosis. Her treatment currently was changed to bortezomib therapy, because of the resistance of the disease to 4 cyles of VAD (vincristine, doxorubicin, dexamethasone) chemotherapy, although her ascites dissappeared. Involvement of serous cavities in myeloma carries a poor prognosis, and there is no standard effective treatment.

Ref. No: 85 Abstract No: 76

TREATMENT OF RELAPSED/REFRACTORY MULTIPLE MYELOMA WITH THALIDOMIDE: A RETROSPECTIVE EVALUATION IN A CENTER

[1]Bahriye Payzın, [2]Gülbin Seyman Çetinkaya

[1]Izmir Atatürk Research Training Hospital, Department of Hematology, Izmir, Turkey [2]Izmir Atatürk Research Training Hospital, Department of Internal Medicine, Izmir, Turkey

Between August 2004 and April 2007, 23 cases of multiple myeloma who were refractory to first line chemotherapy or had relapse of disease, and started to thalidomide treatment were evaluated retrospectively. There were 12 men (52,2%) and 11 women (47,8%), total 23 patients, median age was 65 (range 50-77). Eight patients had (34,7%) IgG kappa, 2 patients (8,6%) IgG lambda, 3 patients (13%) undetermined heavy chain kappa, 2 patients (8,6%) IgA lambda, 7 patients (30,8%) IgA kappa and 1 patient (4,3%) was kappa light chain gammapathy. There were 16 patients (69,5%) at stage IIIa, 7 patients (26%) at stage IIa and 1 patient (4,5%) at stage Ia. Median follow up duration was 9 months (3-32 months), median duration of thalidomide therapy was 7 months (2-32 months). Prior to thalidomide therapy 13 patients (56,5%) were treated with VAD chemotherapy, 8 patients (34,7%) with melphalan+ prednisolone therapy, 2 patients (8,8%) with dexamethasone therapy. Also radiotherapy were applied to 8 patients (34,7%) before chemotherapy and 5 patients (21,7%) also treated with oral cyclophosphamide therapy in addition to thalidomide therapy. Median thalidomide therapy dosage were 200 mg (100-300). Side effects of thalidomide were observed in 7 (30,7%) patients; 2 (8,6%) peripheral edema, 2 (8,6%) gastrointestinal side effects, 2 (8,6%) neurologic side effects, 1 (2,3%) pulmonary side effects and 1 (2,3%) tinnitus. In 1 patient (2,3%) thalidomide therapy was stopped due to venous thrombotic event. The result of thalidomide therapy, 1 (4,3%) complete remission, 3 (13,4%) partial remission,, 4 (16,8%) minimal response, 11 (47,8%) stable phase disease, 3 (13,4%) refractory to treatment. Also 1 (4,3%) patient was not evaluated due to short term therapy (< 2 months). Total response rate was %35,5. In follow up period 4 patients (%17) were died and 4 (%17) patients were out of control. Although two patients who died were not refractory to thalidomide therapy, they had associated cardiovascular diseases that caused death. The estimated one-year OAS for all 23 patients was 65,6 %. Our study showed that thalidomide demonstrated appropriate efficancy with acceptable toxicity profile. Influence on patients survival in multiple myeloma patients warrants further studies.

Ref. No: 103 Abstract No: 77

MULTIPLE MYELOMA: RETROSPECTIVE ANALYSIS OF 35 PATIENTS

Gülten Sop, Füsun Özdemirkıran, Tuğba Gümüş, Şermin Çoban

Izmir Training And Research Hospital, Izmir, Turkey

Multiple myeloma is a neoplastic monoclonal proliferation of bone marrow plasma cells, characterized by lytic bone lesions, plasma cell accumulation in the bone marrow and the presence of monoclonal protein in the serum and urine. Multiple myeloma accounts for about one

percent of all malignancies. The median age at diagnosis is 65 years and 15% of cases under age 60 years. In this study we evaluated a total of 35 patients with multiple myeloma which was diagnosed according to Kyle-Greipp criteria and made a retrospective analysis regarding clinical characteristics at presentation, outcomes and survival. These patients were followed in our centre from 1999 to 2006. The mean age 64,5 years (range 44-84). Twenty patients (57%) were female and fifteen patients (43%) were male. (64%) of all patients had lomber pain, (70%) had fatigue and (12%) had disseminated bone pain in their whole body at presantation. Radiographic skeletal survey was made for all patients. There was no lytic lesion in four patients only but the rest of the patients had multiple lytic lesions. All patients were staged according to Durie – Salmon staging system. Two patients stage IA, five patients stage IIA and two patients were stage IIB. Twelve of the other twenty six patients were stage IIIA and fourteen patients were stage IIIB. Laboratory findings were as follows: The mean erythrocyte sedimantation rate was 114,5 mm/h (range 62-156) and hemoglobin level 8,7 g/dl (range 4,1-12,5). The mean LDH level and albumin level was 401 U/L (176-1810) and 3,2 g/dl (1,9-4,8) respectively. On the other hand the mean BUN level 89,2 mg/dl and creatinine level was 2,4 mg/dl at presentation. Immunfixation electrophoresis in serum and urine was made for all patients. Serum and urine immunelectrophoresis confirmed IgG kappa monoclonal gammopathy in five patients, IgG kappa monoclonal gammopathy and kappa free light chain in fourteen patients IgA lambda monoclonal gammopathy in two patients, Ig A kappa monoclonal gammopathy in six patients. We have confirmed also kappa light chain in two and lambda light chain in six patients respectively. Twenty six patients received VAD (Vincristine, Adriamycine and Dexamethasone) and nine patients received MP (Melphelan and Prednisolon) for first line therapy. Two patients received VAD after MP. Four patients treated with high dose melphelane chemothreapy and autologous transplant after plateau phase. Refractory or relaps four patiens received thalidomide and three patients received bortezomib after VAD. Seven patients received paliative radiotherapy additionally. The mean follow -up duration of patients were 25,4 months. Five patients were out of follow up. Twenty patients were died. The other ten patients are still being follow up. Three years survival rates of stage II 50 % and 27 % for stage III. Since there were no enough cases we have not evaluated patients in stage I.

Ref. No: 113 Abstract No: 78

ORAL MELPHALAN AND PREDNISONE PLUS THALIDOMIDE COMPARED WITH HIGH-DOSE THERAPY FOLLOWED BY AUTOLOGOUS PERIPHERAL-BLOOD STEM-CELL TRANSPLANTATION IN PATIENTS WITH MULTIPLE MYELOMA

Hakan Özdoğu, Can Boğa, Ebru Kızılkılıç, Mahmut Yeral
Baskent University Faculty of Medicine, Department of Hematology, Ankara, Turkey

Background: High dose chemotherapy followed by autologous stem cell transplant is currently used for the treatment of patients with advanced multiple myeloma. Oral melphalan and prednisone chemotherapy plus thalidomide (MPT) is also an effective treatment in patients who not eligible autologous stem cell transplantation. However, there are no comparative reports of the results of these treatment modalites. Methods: Efficacy of the high dose chemotherapy followed by autologous stem cell transplantation and combination of melphalan, prednisone, and thalidomide have been appreciated in 8 (median age 57; Group I) and 6 (median age 61; Group II) newly diagnosed patients with multiple myeloma, respectively. Results: According to European Bone Marrow Transplantation/ International Bone Marrow Transplantation Registry (EBMT/IBMTR) criteria, 25% of patients achieved immunofixation-negative complete disease remission (CR), 13% achieved a very good partial response, and 62% achieved a partial response, with a 50-89% reduction in monoclonal paraprotein,in group I. Thirtythree percent of patients achieved immunofixation-negative complete disease remission (CR), no patient achieved a very good partial response, and 50% achieved a partial response, with a 50-89% reduction in monoclonal paraprotein in group II. . Seventeen percent showed progressive disease in patients who recived MPT treatment. The median time to maximum response was 3 months. It was roughly same in two groups. The major acute adverse events (National Cancer Institute Common Toxicity Criteria Grade III-IV) included thrombosis 0% and 16%, infections 12% and 8%, constipation 6% and 50%, and hematologic 50% and %33 and neurologic 12% and %33 toxicities respectively. Conclusions: These preliminary data suggested that MPT induced rapid and durable tumor responses with CR rates similar to those observed after autologous transplantation. MPT treatment may be suitable first line treatment in myeloma patients. MPT merits further investigation in randomized clinical trials.

Ref. No: 132 Abstract No: 79

CLINICAL AND BIOCHEMICAL FEATURES FOR MONITORING MULTIPLE MYELOMA: A RETROSPECTIVE ANALYSIS FROM "DENIZLI LEUKEMIA-LYMPHOMA-MYELOMA STUDY GROUP" (DLLMSG)

[1]Sibel Kabukçu Hacıoğlu, [1]İsmail Sarı, [2]Sami Karti, [3]Nilay Şen, [4]Belda Dursun, [1]Ali Keskin
[1]Pamukkale University, Faculty of Medicine, Department of Hematology, Denizli, Turkey [2]Denizli Education and Research Hospital, Hematology Unit, Denizli, Turkey [3]Pamukkale University, Faculty of Medicine, Department of Pathology, Denizli, Turkey [4]Pamukkale University, Faculty of Medicine, Department of Nephrology, Denizli, Turkey

Background and Aim: Multiple myeloma, a neoplasm of plasma cells, accounts for approximately 15% of lymphatohematopoietic cancers (LHC) and 2% of all cancers. Incidence rates increase with age, particularly after age 40, and are higher in men than women. "Denizli Leukemia-Lymphoma-Myeloma Study Group" (DLLMSG) was nearly established to register the data of lymphoma, leukemia, and myeloma patients in our city in Western Anatolia. So, we have carried out a retrospective analysis of the clinical and biochemical features of the newly diagnosed multiple myeloma patients followed at our hematology centers. Patıents and Methods: Records of all patients in whom multiple myeloma was initially diagnosed at the Departments of Hematology at the Pamukkale University and Denizli Education&Research Hospital from January 2004 to April 2007, were reviewed. Results: Of the 38 study patients, 2. 6% were younger than 40 years, and 25. 6% were 70 years or older. The median age was 65 years (range; 37-78 years). Among patiens with multipl myelom 20 (52 %) were female and 18 (48 %) were male. ECOG performance status were ≥ 2 in 22/38 (58%)

patients. Twelve patients (32%) were in stage 3 according to Druie-Salmon staging system. Anemia was present initially in 84% of patients, hypercalcemia (calcium level > or = 11 mg/dL) in 12%, and a serum creatinine level of 2 mg/dL or more in 15%. The beta2-microglobulin level was increased in 75%. Serum protein electrophoresis revealed a localized band in 28 (73%) of all patients, and immunoelectrophoresis or immunofixation showed a monoclonal protein in 84%. A monoclonal light chain was found in the urine in 66%. Nonsecretory myeloma was recognized in 5% of patients, whereas light-chain myeloma was present in 24%. Conventional radiographs showed lytic lesions in 69%. Extramedullary plasmacytoma were found in four (11%) patients. VAD (Vincristine, Adriablastina, Dexamethasone) were used in 26 patients, and the remaining 12 patients were treated with MP (Melphelane and prednisolone) at initial therapy. Overall response rates were 71%. Ten patients required salvage therapies. Two (5%) of all patients die within 60 days of diagnosis of MM. Infection with renal failure and bleeding are the direct causes of early mortality. Multivariate analysis revealed that age, myeloma cell rate in bone marrow, low platelet count, erythrocyte sedimentation rate, serum lactate dehydrogenase level, serum albumin value, and creatinine value were the most important prognostic factors. The median duration of disease free survival and overall survival were 10 months and 32 months, respectively.

Ref. No: 98 Abstract No: 80

ENDOTHELIAL CELL KINETICS IN PLASMA CELL LEUKEMIA

[1]İlknur Kozanoğlu, [2]Hakan Özdoğu, [2]Can Boğa, [3]Erkan Maytalman, [3]Oktay Sözer

[1]Baskent University Medical Faculty Physiology Department, Adana, Turkey [2]Baskent University Medical Faculty Hematology Department, Adana, Turkey [3]Baskent University Adana Hospital Hematology Research Laboratory, Adana, Turkey

Plasma cell leukemia (PCL) is a rare lymphoproliferative disorder characterized by a malignant proliferation of plasma cells in the bone marrow and peripheral blood. PCL is also characterized by a fulminant course and poor prognosis. . Despite chemotherapy and the use of novel therapeutic agents patients had short survival. Diagnosis of PCL is established based on Kyle's criteria which include an absolute plasma cell number comprising greater than 20% of peripheral blood cells. We described one case (53 year, male) of PCL patient. In this case, the bone marrow aspirate smears and biopsy specimens demonstrated a diffuse infiltrate of atypical plasma cells. Immunophenotypic studies showed that case was positive for plasma cell-associated antigens (cytoplasmic immunoglobin, CD38, or CD138) and negative for CD20. We aim to enumarate circulating endothelial cells (CECs) and endothelial progenitor cells (EPCs) during the course of therapy in a patient with primary PCL. A panel of monoclonal antibodies, anti CD146 FITC, anti CD 144 PE, anti CD34 ECD, anti CD117 PC5 were used to enumarate CECs and EPCs CMV pp65 positive patients. Flow cytometric measurement were performed with a FACS calibur flow cytometry (Coulter Epics XL-MLC, Beckman Coulter, Florida, USA) equipped with a 15 mW air-cooled 488-nm argon ion laser. Data were analyzed by using EXPO 32 ADC software. CECs number was 33500/mL and EPCs number was 23000/mL before therapy in our patient. After Bortezomib therapy CECs and EPCs numbers were decrease (CECs: 2400/mL and EPCs: 1840/mL). Changes in the number of circulating endothelial cells are becoming prognostic criteria for various clinical events. The quantification of CECs could indicated the presence of endothelial injury, and is simple method of evaluating endothelial-related physiologic and pathophysiologic states. If a correlation between the quantity of CECs and pathologic conditions could be established, circulating CECs could be useful in the diagnosis of the vascular disease, in the explanation of pathophysiologic factors, in the prognostic evaluation of the disease progressions and/or in the evaluation of the treatment efficicany. In one study serum level of VEGF in advanced state of multiple myeloma was elevated and correlated with clinical state. An elevated serum level of VEGF is tought to be associated with a poor prognosis. Plasma cell leukemia represents the most aggressive form of monoclonal gammopathy for which new treatment approaches are needed. Here we report the effect of Bortezomib on both plasma and endothelial cells from one patients with PCL. Bortezomib reduced both plasma cells and CECs numbers. Despite new therapeutic agents, PLC have poor prognosis and short survival. Our patient died 18 mounth later after diagnosis and we lost him by sepsis and chronic renal failure. These observations may help to improve new therapeutic tool for PCL.

Ref. No:143 Abstract No: 81

OSTEONECROSIS OF THE JAW IN PATIENTS WITH MULTIPLE MYELOMA TREATED WITH ZOLEDRONIC ACID

Sedat Çetiner[1], Gülsan Türköz Sucak[2], Şahika Zeynep Akı[2], Benay Kocakahyaoğlu[1], Sevil Kahraman[1], Mehmet Araç[3], Mustafa Çetiner[4], Ertan Delilbaşı[1], Rauf Haznedar[2]

[1]Gazi University, Faculty of Dentistry, Department of Oral & Maxillofacial Surgery,Ankara, Turkey

[2]Gazi University, Faculty of Medicine, Department of Hematology, Ankara, Turkey

[3]Gazi University, Faculty of Medicine, Department of Radiology, Ankara, Turkey

[4]Marmara University, Faculty of Medicine, Department of Hematology, Istanbul, Turkey

Intravenous bisphosphonates; the potent inhibitors of osteoclast mediated bone resorption are one of the most commonly prescribed drugs in the management of multiple myeloma (MM). Zoledronic acid (ZA) is a new generation potent intravenous bisphosphante, which has been approved for the treatment and prevention of bone lesions, and/or hypercalcemia associated with MM. Osteonecrosis of the jaw (ONJ) is an emerging serious side effect of the new generation bisphosphonates with a growing number of reports related to this pathological entity. ONJ usually appears following oral surgical and dental procedures, while sometimes spontaneously. These cases are mostly seen and treated by dentists and oral surgeons. The aim of this study was to assess the frequency, characteristics, risk factors and management of ZA induced ONJ in a homogenous group of patients with MM. Twenty six patients with MM who received ZA for a median period of 27 months (min: 5 months, max: 76 months) were evaluated. ONJ was detected in 4 patients and mean drug duration time was 35 months. The frequency was 15.4% and the patients were usually symptomatic. There was no significant difference in terms of the duration of ZA in patients with and without ONJ

(p>0.05). Management of these established cases was performed with medical treatment, minor debridement and sequestrectomy. Our data indicates that ZA therapy has a major role in the development of ONJ a fact that should be considered by physicians treating MM patients. Prevention rather than treatment is more effective in managing ZA induced ONJ; patients with myeloma should be referred to an experienced dentist before the initiation of ZA and should be followed up closely in terms of oral symptoms and signs during the course of their treatment. ZA should be deferred until dental and oral surgical treatments are complete. *Keywords: Multiple myeloma, jaw osteonecrosis, bisphosphonates, zoledronic acid*

MYELODYSPLASTIC SYNDROMES

Ref. No: 3 Abstract No: 82

DATA FROM THE REGISTRY OF THE PATIENTS WITH MYELODYSPLASTIC SYNDROME FROM CLINIC OF HEMATOLOGY, FUNDENI CLINICAL INSTITUTE, BUCHAREST, ROMANIA. I. EPIDEMIOLOGICAL GENERAL DATA

Gologan Radu, Georgescu Daniela
Clinic of Hematology, Fundeni Clinical Institute, Bucharest, Romania

Background. Since the World Health Organization (WHO) recognized MDS as a disease entity only starting with 1997, epidemiological data on MDS cannot be obtained from official statistics on morbidity and mortality and have to be extracted from specialized registers. We present the first romanian study on the incidence and characteristics of MDS, based on the data existing in Fundeni Clinical Institute, Bucharest, the greatest hematological department in Romania. Method. The MDS files at diagnosis of the patients admitted during the period 1980-2005, recorded in the registration forms provided by the MDS Foundation (USA), represented the primary data-base. The hematological data of the MDS patients included in the registry were re-evaluated and classified according to French-American-British (FAB) criteria. The distribution by sex, age groups, subtypes and the annual number of new cases were analysed comparatively with other reference studies. Results. Four-hundred and three cases of MDS were identified. The distribution between sexes was relatively balanced with a slight global preponderance of males ((M/F 1. 26), except for refractory anemia with excess of blasts (RAEB) 1. 94. The mean age at diagnosis was 62. 3 years (16-90). Most of the patients (60. 6 %) belonged to the group of age 61-80, where all the subtypes of MDS had the highest rates. A noticeable proportion (17%) had ages below 50 years, 25% of which in the range 16-30. On the other hand, few cases (4%) were above 81. Patients with refractory anemia (RA) and refractory anemia with ringed sideroblasts (RARS) accounted for 44. 5% of all cases (RA 29%, RARS 15. 5%), RAEB and RAEB in transformation 33%, chronic myelomonocytic leukemia 5. 6% and unclassified 16. 7%. The annual number of new cases was constantly low during the period 1980-1989, but increased dramatically from 11 cases/year in 1990 to a maximum of 48 cases/year in 1999, showing a certain decrease afterwards. The subtypes with the most important increase in time were RA and RARS. Conclusions. This study indicates an actual increase of the number of MDS cases in Romania over the investigated period of time. Particularly, a noticeable proportion of young patients and a low proportion of patients ≥ 81 years have been found, which make our findings in the middle between the Asian than to the Western MDS epidemiological results. e-mail: mds. fundeni@ yahoo. com

Ref. No: 108 Abstract No: 83

TREATMENT OF HIGH-RISK MYELODYSPLASTIC SYNDROME WITH DEMETHYLATING AGENTS

Banu Diri, Can Boğa, Hakan Özdoğu, Mutlu Kasar
Baskent University Faculty Of Medicine, Department Of Hematology, Adana, Turkey

Myelodysplastic Syndrome (MDS) comprises a heterogeneous group of clonal hemopathies derived from an abnormality affecting a multipotent hematopoietic stem cell and characterized by maturation defects resulting in ineffective hematopoiesis. It most frequently occurs in elderly patients. Despite trials testing numerous agents in patients with MDS, no single drug has yet emerged as an accepted standard of treatment. The effect of available lineage-specific growth factors is limited to improvement of single lineages and has not resulted in the survival benefit. Observation and supportive care with blood products and antibiotics, when necessary, continue to be the mainstays of therapy. We administered 5-azacytidine, a cell-cycle specific ring analog of the pyrimidine nucleoside cytosine, as a continuous intravenous infusion, 75 mg/m2 per day for 7 days every 4 weeks to two MDS patients, one of whom is 48-year-old-female and the other is 77-year-old-male. The patients had refractory anemia with excess blasts (RAEB) and refractory anemia with excess blasts in transformation (RAEB-T). One patient was received two cycle of 5-AZA and the other was received only one cycle. During the observation period after the treatment, a clear hematologic response, decrease in the need of transfusion and blasts clerearence did not occur. Hematological toxicity was mild and consisted of thrombocytopenia and leukopenia. Extramedullary toxicity consisted of arthralgia, diarrhea. But both of the patients died in thirty days due to sepsis. As the result of our observation we may suggest that after this treatment the control of the disease is hard and the possibility of infection is frequent.

Ref. No: 134 Abstract No: 84

FLOW CYTOMETRIC ANALYSIS OF PERIPHERAL BLOOD IN DIAGNOSIS OF MYELODYSPLASTIC SYNDROMES

Eren Gündüz, O. Meltem Akay, Hava Üsküdar Teke, Gülcihan Demirel, Zafer Gülbaş
Osmangazi University, Eskişehir, Turkey

Myelodysplastic syndromes (MDS) are a heterogenous group of diseases and more objective tests are needed for diagnosis. Flow cytometric analysis of peripheral blood has been suggested useful for diagnosis of MDS, recently. In this study we evaluated the diagnostic value of peripheral blood analysis by flow cytometry in MDS. 16 patients with MDS, 5 patients with cytopenias other than MDS and 10 healthy controls are included in the study. Peripheral blood samples are stained with CD45, CD33, CD7, CD13, HLA DR, CD117, CD34, CD10, CD11b, CD11c, CD71, CD16, CD15, TdT, MPO monoclonal antibodies and analysed at flow cytometry (BD-FACS Calibur). Neutrophils, lymphocytes and monocytes are

identified by CD45/SSC. Presence of abnormal cell population, positive or negative antigenic expression or different expressions, hypogranularity are evaluated. Abnormal cell population (7/16), hypogranularity (1/16), CD10 negativity (8/16), presence of HLA DR (3/16), presence of CD117 (3/16), lack of CD33 expression (2/16), lack of CD13 expression (2/16), presence of CD34 (2/16), lack of CD11c (2/16) on neutrophil gate; presence of CD33 (10/16), presence of CD13 (8/16), presence of CD117 (3/16), presence of CD34 (1/16) on lymphocyte gate were most frequent abnormalities in patients with MDS. In conclusion, flow cytometric analysis of peripheral blood is useful in MDS diagnosis. Most common abnormalities are presence of abnormal cell population on CD45/SSC, lack of CD 10 on neutrophils, presence of CD33 and CD13 in lymphocyte gate.

MYELOPROLIFERATIVE DISORDERS

Ref. No: 97 Abstract No: 85

CIRCULATING CD34 CELLS IN MYELOFIBROSIS

[1]İlknur Kozanoğlu, [2]Hakan Özdoğu, [2]Can Boğa, [3]Oktay Sözer

[1]Baskent University Medical Faculty Physiology Department, Adana, Turkey [2]Baskent University Medical Faculty Hematology Department, Adana, Turkey [3]Baskent University Adana Hospital Hematology Research Laboratory, Adana, Turkey

Myelofibrosis with myeloid metaplasia was first described in 1879, classified as a myeloproliferative disorder in 1951, and characterized as a clonal stem cell disorder in 1978. It characterized by panmyelosis with intact maturation, progressive bone marrow fibrosis, and multiorgan extramedullary hematopoiesis. Idiopathic myelofibrosis characterize may lead to an increased number of CD34(+) cells in the peripheral blood. We aim to absolute number of circulating CD34 positive cells by flow cytometry in patients with idiopathic myelofibrosis. The diagnosis criteria of myelofibrosis were utilized for the Italian Consensus Conference criteria. We enrolled 11 patients (6 women and 5 men; age range, 45-74 years) with myelofibrosis. The patient group was a non-selected group. Peripheral blood samples were drawn into EDTA anticoagulated tubes. A panel of monoclonal antibodies, anti CD45FITC monoclonal antibody and anti CD 34 PE monoclonal antibody were used. Analyses were performed using a FACS calibur flow cytometry (Coulter Epics XL- MLC, Beckman Coulter, Florida, USA) and a single platform assay following the cell- gating guidelines recommended by the International Society of Hemotherapy and Graft Engineering (ISAGE). Data were analyzed by using EXPO 32 ADC software. Curcalating CD34 cells number were calculated in 11 patients by using ISAGE protocol by flow cytometry. Mean number of CD34 was 105. 2±2460. 9 (15-7936)/mL in this study group. CD 34 is a transmembran glycophosphoprotein expressed on early hematopoietic cells. Under normal conditions, CD 34 positive cells represent a small proportion (less than 1%) of bone marrow nucleated cells. There is little exchange of hematopoietic stem cells from the marrow through the blood and into the marrow under basal conditions and, in steady state, CD34 positive cells from less than %0. 1 of peripheral blood nucleated cells in humans. Using different approaches, increased numbers of circulating stem cells have been found in patients with myelofibrosis. Our results were parallel with the previous reports, suggesting enumeration of CD34 positive cells in patients with myelofibrosis. Thus, enumeration of circulating CD34 positive cells may be useful in patients with myeloproliferative disorders.

Ref. No: 107 Abstract No: 86

NORMALIZATION OF PLATELET COUNT DURING PREGNANCY IN A PATIENT WITH ESSENTIAL THROMBOCYTHEMIA

Can Boğa, Hakan Özdoğu

Baskent University Faculty of Medicine, Department of Hematology, Ankara, Turkey

Essential thrombocythemia (ET) are myeloproliferative disease characterized by clonal proliferation of hematopoietic stem cells leading to increased production of mature circulating cells. There are no randomized or controlled studies about pregnancies in ET. In a reported cases, the obstetric complication rate of pregnancies was around 50% (mostly first trimester miscarriage). Maternal thrombotic episodes occur in about 5% of patients. A platelet count higher than 1500x109/L is considered to be the major risk factor for the vascular risk in ET patients. However, it was reported that the platelet count progressively declined by 15% to %20 during pregnant patient with ET. Herein, we report our experience of a successful pregnanciy in a women who have essential thrombocythemia. The patients had a significant fall in platelet counts from > 1500x109/L of non-pregnant state to normal values (< 400x109/L) during the course of the pregnancy. This patient had a history of regular use of hydroxyurea before pregnancy, which was interrupted in the pregnancy period. One month after delivery, the platelet count returned to non-pregnant state (>1000x109/L). An analysis of pooled outcome data from 461 pregnancies in ET showed that the avarage platelet count was 1010x109/L in patients with succesful pregnancies. Our patient had normal platelet levels during her pregnancy. The mechanism responsible for such decline is unclear. This observation suggested that hematological effects of pregnancy may show individual discrepancies.

CHRONIC MYELOID LEUKEMIA

Ref. No: 115 Abstract No: 87

DOES BRASSICA RAPE (A PLANT FROM FAMILY BRASSICACEAE) SOLUTION INDUCE FLUID RETENTION IN CML PATIENTS WHO RECEIVED IMATINIB?

Süheyl Asma, Can Boğa, Hakan Özdoğu

Baskent University Faculty of Medicine, Department of Hematology, Ankara, Turkey

Imatinib has significantly improved the outcome of the patients with chronic myeloid leukemia. It was FDA approved because of its exceptional safet profile. Fluid retention is considered to be the most common adverse event associated with imatinib. The plant Brassica rape (BR) is belong the family of Brassicaceae. Brassica rape solution drinking is very common in the intriguing region of Meditteranean, which is located in southern Turkey. This solution is capable fluid retention because of high salt content. We aimed to observe the effects of regular use of BR that might contribute to fluid retention in patient with CML who received imatinib. Interview, was conducted with 15 (6 female and 9 male; age range, 23-72 years) participants with CML. The response rate was

100%. Four of the patients stated that they drank BR solution roughly 200 mL/week. However, we found that our participants with CML had no severe symptoms or other clinical manifestations of fluid retension at the time of the study. This observation did not support the thesis that BR solution might induce fluid retention in patients with CML using imatinib.

Ref. No: 117 Abstract No: 88

TREATMENT ALTERNATIVES IN YOUNG-POOR RISK CML PATIENTS

Süheyl Asma, Can Boğa, Hakan Özdoğu, Ebru Kızılkılıç
Baskent University Faculty of Medicine, Department of Hematology, Ankara, Turkey

Monitoring response at molecular level is suggested to provide a new reference measurement in treatment of Philadelphia chromosome positive chronic myeloid leukemia (Ph+ CML) and plays an important role in optimizing treatment. The molecular response is described as removal or reducing of Bcr-Abl transcripts which produce abnormal proteins responsible for white blood cell proliferation in CML patients. In these patients who showed a major molecular response along with a complete cytogenetic response at 12th month, the survival ratios, without progression, were expressed as 100% at 24th month. With studies showing that Glivec (imatinib) provides a better molecular response than conventional combination therapies, the molecular response is expressed to be a new reference measurement that can reveal success of CML treatment. However, long term results of imatinibe in CML patients are not well known. In this report, we presented findings of 6 Ph+ CML cases (3 female, 3 male, all younger than 50 years of age) having received imatinib therapy between the years 2005 and 2007. For four of the patients, exactly matching donors were found but for one of the patients the search of a donor had not been completed yet. According to Sokal scoring 2 patients were located in low-good, 3 patients in intermediate and 1 patient was in high-poor risk group. The hematological response was observed at 12th day in the low risk group and approximately at 45th day in the other groups. On the other hand, cytogenetic response was seen in 3rd month in low risk patients and approximately in 9th month in intermediate and high risk groups. Hematological and molecular responses were achieved in all patients in one year. In 24th month, Philadelphia chromosome became positive in PCR in one patient from poor risk group. Generally imatinib therapy was well tolerated. However, since we do not know the long term outcomes, there is not sufficient data about the question "Which patients should receive PSCT first?" Today, we know that the curative therapy can only be achieved with PSCT. Particularly in patients from early chronic phase and good risk group, long term disease free and total survival was observed with PSCT. However, factors affecting transplantation related deaths must be described well because of the long term mortality and morbidity that are associated with stem cell transplantation. But we still think that PSCT will be a good treatment alternative in cases with HLA matched sibling donor and at early chronic phase with molecular and hematological response, particularly in young-poor risk patients (<45 years).

Ref. No: 118 Abstract No: 89

PERIPHERAL POLYNEUROPATHY ASSOCIATED WITH IMATINIB TREATMENT

Can Boğa, Hakan Özdoğu
Baskent University Faculty of Medicine, Department of Hematology, Ankara, Turkey

It has been reported that neurological side effects and complications peripheral may occur during the course of chronic myeloproliferative diseases. Among these complications, peripheral polyneuropathy has been shown to be associated with the development of cryoglobulinemia, paraproteinemia and/or interferon therapy. Imatinib (a tyrosine kinase inhibitor) was FDA approved because of its exceptional safe profile. However, polyneuropathy associated with imatinib has not been reported yet. A 58-year-old man was hospitalized because of leukocytosis. A diagnosis of chronic phase chronic myelocytic leukemia was made. The patient did not complained of dysesthesia or pain in his feet during the initial therapy of hydroxyurea lasting after four weeks. Administration of imatinib were started. Two months later, the patients achieved hematologic response. After 8 weeks of imatinib treatment, the patient complained of worsening dysesthesia an severe pain in his feet, particularly in the right. An mixed form of peripheral neuropathy was diagnosed by electrophysiological examination. The patient had no history of diabetes mellitus, hypertension, hyperlipidemia, and alcohol consumption. Biochemical and immunological studies revealed no paraprotein and cryoglobulin. There was no sign of vasculitis. His neoropathic complaints persisted for two years Therefore, the clinical course suggested that mixed cryoglobulinemia was associated with chronic myelocytic leukemia.

PALLIATIVE CARE – SUPPORTIVE THERAPY

Ref. No: 47 Abstract No: 90

FEBRILE NEUTROPENIC EPISODES IN ACUTE LEUKEMIA PATIENTS: EXPERIENCE OF BAŞKENT UNIVERSITY HOSPITAL

[1]Neslihan Andıç, [1]Sema Karakuş, [1]Gül İlhan, [2]Funda Timurkaynak, [2]Hande Aslan
[1]Baskent University, Faculty of Medicine, Department of Internal Medicine, Hematology Division, Adana, Turkey
[2]Baskent University, Faculty of Medicine, Department of Infectious Diseases, Ankara, Turkey

Febrile neutropenia is a major cause of morbidity and mortality in acute leukemia patients. Besides infections caused by resistant bacterial microorganisms, fungal and viral infections are serious clinical problems in these patients. Although there are guidelines for management of the febrile neutropenia, every hosipital has its own microorganism spectrum and every center has to know its own patient profile. Social securities, costs, clinical experiences and patient's own clinical caracteristics effect the antimicrobial choice. With this study we deside to reveal our data so that we can make more accurate decisions in future febrile neutropenia episodes and can compare our results with other centers and we can also let them to do so. We researched the medical files of our adult acute leukemias admitted to our hospital since january 2002. 42 febrile neutropenic episodes of 22 patients were taken under consideration. Mean age was 48 (SD±19) years. There were four acute lymphoblastic leukemias (ALL), two secondary leukemias, 16 acute myeloid leukemias (AML). Fever developed minimum at day 0 of absolute

neutropenia and maximum at day 15 (mean 3. 19 days). Most of the febrile episodes were on day 0 (16 of 42) and most of these first day fevers were newly diagnosed patients (68. 8%). At diagnosis 69% of patients were started treatment without any signs of infection other than fever, 14. 3% of patients had clinical sign of infection, at 11. 9% of patients radiology effected the treatment, only 2 episodes (4. 8%) there had been culture positivity guiding the initial therapy. On follow up, radiologic tests showed infection's source in 31% of episodes and at 38. 1% of the episodes, the agent was isolated. 11 episodes (24%), had proven fungal infection. At 15 (47%) of 32 febrile episode with no proven fungal infection, some kind of antifungal agent were used and in 11 (73%) of them liposomal amphoterisin B was the choice. On 27 episode (64. 3%) GCSF was used. In patients receiving standart or high dose treatment, GCSF was used in 67. 7% of the episodes, with reduced dose regimens the percentage was 71%. Among all febrile episodes 71. 4% ended with resolution, 14. 3% ended with death, 6 patient (14. 3% of episodes) were discharged because of the resistancy of their primary illness. In our study in 31% of patients we couldn't show the infectious source of fever in the follow up. Empirical antifungal therapy for suspected infections is standart of care in neutropenic cancer patients with persistent fever despite broad-spectrum antibiotics. In our center in about half of the episodes, antifungal treatment is added to the therapy. GCSF use in our patient group is parallel with the literature. Sample of cases are insufficient to give complicated statistics but it revealed our patients data and will be used in our future desicions. On this very important subject the we need more data and future studies will be planned.

STEM CELL TRANSPLANTATION

Ref. No: 7 Abstract No: 91

TESTS, HISTORICAL EFFORTS AND IMMUNE RECONSTITUTION IN CORD BLOOD STEM CELLS TRANSPLANTATION

Shaban Alizadeh, Ali Abedi, Shahab Bohlooli
Arums, Iran

Allogeneic stem cell transplantation is an accepted treatment modality for selected malignant and non-malignant diseases. However, the ability to identify suitably matched related or unrelated donors can be difficult in some patients. Alternative sources of stem cells such as cord blood provide a readily available graft for such patients. Since the cell numbers of hematopoietic progenitors in cord blood is limited and the collection can occur only in a single occasion, its use in adult patients can be more problematic. The patient outcomes should be review and analyze for various factors such as cell dose, HLA typing, and patient selection that could have contribute to the final outcome of these adult patients. Discussion of the various benefits and risks should be present. Description of the historical efforts associated with expansion of hematopoietic stem cells, specifically with cord blood cells expand cord blood cells continue with novel methods. Moreover, a better understanding of stem cell biology and signaling is critical if we are to be able to effectively expand these cells for clinical use. Describe the immune reconstitution or lack thereof following cord blood transplantation appears be very important, one of the hallmarks of successful hematopoietic stem cell transplantation is the ability to fully reconstitute the immune system of the recipient. Thus, the relationship between stem cell source and the development of T lymphocyte functions required for protection of the recipient from infection will be described, and cord blood recipients will be compared with those receiving other sources of stem cells. Key words: stem cell, cord blood, transplantation

Ref. No: 70 Abstract No: 92

AUTOLOGOUS HEMATOPOIETIC STEM CELL TRANSPLANTATION FOR LYMPHOMA AND MYELOMA AT YEDITEPE UNIVERSITY HOSPITAL

Sabiha Yüce, Gülçin Kalaycı, Sema Aktaş, Didem Aydın, Başak Oyan, Yener Koç
Yeditepe University Stem Cell Transplant Unit, Istanbul, Turkey

Stem cell transplantation(SCT) is an effective treatment modality in hematological malignancies. SCT Unit at Yeditepe University Hospital(CIC-919) was activated in October 2005 and accredited for unrelated SCT by EBMT in April 2007. Until April 2007, a total of 26 autologous transplantation was performed for 18 patients with lymphoma (9 NHL, 9 HL) and 8 patients with myeloma. Patients with lymphoma received high-dose sequential chemotherapy consisted of HDVP16 followed by HD-MTZ+HD-MEL preparative regimen after IIVP or HIDAC+HDMTX salvage regimens. Patients with myeloma received HD-MEL at 200 mg/m2 if they are less than 70 years of age, and 140 mg/m2 over 70 years of age. Median age was 43,5 (13-71) years and mean time from diagnosis to transplant was 2,1 years. Lymphoma patients received a mean number of 8 (2-18) salvage regimens prior to transplantation. All patients engrafted and median engraftment period was 13 (9-24) days. Median follow-up period was 7 (1-18) months. During follow-up of 18 patients with lymphoma, 4 patients (22%) relapsed and none died during the follow-up period. 2 of these patients are induced into CR, one following allogeneic transplantation and the other following radiotherapy combined with R-EPOCH regimen. DFS for lymphoma patients at 18 months is 73. 3% at 18 months. Of 8 patients with myeloma, 2 patients (%25) relapsed, and one patient was found to be refractory to HD-MEL preparative regimen. The patient with refractory disease is currently in CR following an unrelated allogeneic stem cell transplantation. Of 2 patients with progressive disease, 1 is currently in CR following 2 cycles of EPOCH regimen and the other died secondary to progressive disease. Post-transplant complications were DVT, transient hyperbilirubinemia, sleep apnea related cardiac arrest which responded to resuscitation (n=1 each). A patient with myeloma experienced transient congestive heart failure in and HBV hepatitis following a dental procedure. All patients were alive following auto-SCT at day +100 (TRM=%0), only one patient with myeloma died due to relapse at 9 months. At present, of 25 surviving patients, 20 are assessed for response and 18 of these patients are in CR. The high survival rate (96%) achieved following autologous SCT, low TRM (0%) and the high remission rate (90%) may be related to team approach, 24-hour patient follow-up, and effective management of complications encountered during early transplant period. Patients with lymphoma or myeloma relapsing following autologous transplantation can be successfully salvaged by a second allogeneic transplantation procedure.

MISCELLANOUS

Ref. No: 142 Abstract No:93

RELATIONSHIP BETWEEN INSULIN RESISTANCE AND SOME COAGULATION AND FIBRINOLYTIC PARAMETERS IN SUBJECTS WITH METABOLIC SYNDROME

[1]Nashwa Abou Samra, [1]Amany Ragab, [2]Asmaa Higazy, [2]Omayma Saleh

[1]Departments Of Clinical Pathology Faculty Of Medicine, Mansoura University, Egypt [2]Internal Medicine, Faculty Of Medicine, Mansoura University, Egypt

Background: Insulin resistance syndrome has been shown to be associated with many coagulation and fibrinolytic proteins and these associations suggest that some coagulation and fibrinolytic proteins have a role in atherothrombotic disorders. Aim: This study was conducted to determine the levels of some of the haemostatic parameters in subjects having metabolic syndrome and to correlate these values with the anthropometric and metabolic variables associated with this syndrome. Subjects and methods: The study included 46 obese non diabetic subjects of whom 28 subjects(group1) fulfilled the ATP III criteria of the metabolic syndrome and 18 subjects (group2) did not have metabolic syndrome as well as 14 lean subjects (group 3) of matched age and sex as a control group. Clinical and laboratory evaluation of the study groups stressed on anthropometric measurements (weight, height, body mass index, waist circumference, and sagittal abdominal diameter), blood pressure, and laboratory measurements of fasting plasma glucose, fasting insulin, serum lipids, tissue plasminogen activator (t-PA), antithrombin III activity (ATIII), protein C and von Willebrand factor (vWf) antigen. Results revealed: Significant increase in the concentrations of t-PA and vWf antigens in subjects having metabolic syndrome (group 1) in comparison to the other groups while there were non-significant changes in the levels of protein C antigen and AT III activity. Both t-PA and vWf showed significant correlation with HOMA-IR as a measure of insulin sensitivity. The t-PA showed also significant correlation with most of the variables of metabolic syndrome including waist circumference, BMI, systolic blood pressure, fasting plasma glucose, fasting insulin, and HDL cholesterol. On the other hand, vWf showed significant correlations with fasting plasma glucose, fasting insulin and sagital abdominal diameter, with non-significant correlations with the other variables. Conclusion: Haemostatic and fibrinolytic parameters should be included in the features and characterization of the insulin resistance syndrome. t-PA and vWf antigens concentrations were increased in subjects with metabolic syndrome and correlated with the HOMA-IR measure of insulin sensitivity. Taking into consideration that both t-PA and vWf are mainly released from vascular endothelium, these findings could be an indicator of endothelial dysfunction in that group of subjects.