1252 PUBLICATION

Detection of human Parvovirus B19 in the CSF of ALL Egyptian children patients

M. El Bassuoni[1], I. ELtonsy[2], A. Fathy[3], F. El Rashdy[4]. [1]*Menoufiyia University, Clinical Pathology, Shebin El Kom, Egypt;* [2]*Menoufiyia University, Pediatric, Shebin El Kom, Egypt*

Background: Parvovirus B19 virus might have a role in the pathogenesis of acute leukaemia. The virus may no longer be present in the serum at the time of diagnosis, but could be present at other sites as the cerebrospinal fluid (CSF). B19 virus is known to cause meningoencephalitis, chronic B19 meningitis has been reported in a child with ALL. It is possible that infection may play a role in initiation of the genetic rearrangements allowing proliferation of the malignant clone.
Aims: to investigate the association of acute parvovirus B19 infection with newly diagnosed acute lymphoblastic leukeamia and its effect on the humoral and cellular immunity.
Methods: Cerebrospinal fluid (CSF) samples collected from children patients with acute lymphoblastic leukaemia (ALL) at diagnosis (n = 20) were analyzed for parvovirus B19 DNA by nested polymerase chain reaction. Serum IgG was measured by neplemetric method. Evaluation of the immune cells CD4/CD8 was done on flowcytometry. None of patients was encephalitic or had evidence of central nervous system leukaemia. In addition, samples from patients with benign intracranial hypertension (BIH) (n = 10) were tested as control group.
Results: Patients age mean 4±2.0 (range 2–7ys). Four leukaemic cases (Pre B-ALL) were significantly positive to viral DNA in their CSF compared to the rest of the cases ($p < 0.001$). All four patients were significantly anaemic, leucopenic ($p < 0.05$) and with a highly significant low platelets count vs. other ALL patients ($p < 0.001$). Serum IgG in the viral positive patients were slightly raised but not reach significance vs. the viral negative and the control group (760–1670 mg/dl, $p > 0.05$). The CD4+ and CD8+ cells were significantly decreased in Parvovirus B19+ cases vs. the rest of the leukeamic cases and the controls ($p < 0.05$).
Conclusion: Parvovirus B19 DNA was found in the CSF of four of 20 patients with ALL leukaemia at presentation (20%) but was absent in normal controls. Serum IgG was insignificantly raised in viral positive patients who assume that the virus has B cell transforming action and or the immune system starts to act. Suppression of CD4+, CD8+ T cells in Parvovirus B19 positive cases, in not yet compromised patients, elucidates the cytopathic effect of the virus and may points to its role in the pathogenesis of acute leukaemia. Further work is required in a large scale to clarify the interaction between the ParvovirusB19 and the immune system in the haematological malignancies.

1253 PUBLICATION

Characteristics and outcome of relapse in children with all treated with BMFprotocols

M. Baka[1], A. Pourtsidis[1], D. Doganis[1], D. Bouhoutsou[1], M. Varvoutsi[1], T. Anastasioy[2], H. Kosmidis[1]. [1]*Children's Hospital Aglaia Kyriakou, Oncology, Athens, Greece;* [2]*Children's Hospital Aglaia Kyriakou, Hematology Lab., Athens, Greece*

Characteristics and outcome of relapse in children with Acute Lymphoblastic Leukemia (ALL) diagnosed from 11/1992 to 12/2002 treated according to BFM 90 and 95 and followed up to 2/2005, were evaluated. Fifty relapses among 194 (25.8%) children, 108 boys and 86 girls, were retrospectively studied. Of these, 31 occurred in boys (28.7%) and 19 in girls (22.1%) 3–82 months (med 24) from diagnosis. Of these relapses 7 occurred very early, 31 early and 12 late. Of 50 relapses 33 occurred in the bone marrow (BM), 6 in the central nervous system (CNS), 5 in the testes and 6 had combined relapses (BM+CNS 3, BM+testis 3). Relapsed children were treated as per the relapse protocols BFM 90 (22/50), BFM 95 (22/50) and other (6/50). 2nd complete remission (CR) was achieved in 35/50 (70%) and of them 15 underwent bone marrow transplantation (BMT), 10 MSD and 5 MUD, and 20 continued with conventional chemotherapy. Of these 35 children 16 (45.7%) continued in CR2 5–108 months from relapse (med 41 mo), 1 died of toxicity after BMT and 18 experienced 2nd relapse (BM 14, CNS 1, combined BM+CNS 3), 3–42 mo after the first relapse (med 8.5 mo). CR3 was achieved in 4/18 children and 1 is alive free of disease for 41 mo after 2nd relapse. In total 17/50 relapsed children are alive (CR2 16, CR3 1) 28–141 mo from diagnosis (med 78) and 5–108 from the last relapse (med 41).
From this group of patients it was shown that elevated white blood count on diagnosis ($p = 0.019$) and very early relapse ($p = 0.035$) have statistical significant prognostic value for the outcome after relapse.

1254 PUBLICATION

Treatment results for childhood T cell lymphoma – ten years experience in one institution

N. Jovanovic, D. Janic, L. Dokmanovic, J. Lazic, P. Rodic. *University Children's Hospital, Hematooncology, Belgrade, Serbia*

Objective: To evaluate outcome for patient with T cell lymphoma treated using modified AIEOP ALL protocol.
Methods: The differences in comparison to AIEOP LLA 95 were follows: 1. HD MTX was reduced from 5 g/m^2 to 2 g/m^2, followed by leukovorin rescue reduced from 7.5 mg/m^2 of levatory form to 7.5 mg/m^2 of raceme form. 2. All patients were given prophylactic CNS irradiation. 3. To increase therapy intensity protocol II was applied twice.
Results: A total of 12 patients with Non Hodgkin lymphoma (NHLy) were evaluated, 9 boys and 3 girls, median age 10.2 years (range 61 to 185 months). NHLy patients presented with palpable supraclavicular lymph nodes and/or mediastinal tumour. There were 2 (16.6%) toxic related deaths. One patient with NHLy relapsed during maintenance therapy after 11 months. With a median follow up of 59.7 months event free survival is 75%.
Conclusion: Treatment specifically tailored to local condition opens a possibility to achieve high cure rate in low income countries but it there is a great need for improvement in supportive care treatment.

Patient Management

Oral presentations (Wed, 2 Nov, 13.45–15.45)

Improving Cancer Care: from geriatric oncology to special clinical issues

1255 ORAL

PACE: risk assessment for cancer surgery in elderly

R.A. Audisio[1,2], H.S. Ramesh[2], R. Gennari[3], G. Corsini[4], M. Maffazzini[5], H.J. Hoekstra[6], F. Bozzetti[7], H. Wilders[8], K. Sunouchi[9], D.P. Pope[10]. [1]*University of Liverpool, Surgery, Liverpool, United Kingdom;* [2]*Whiston Hospital, Surgery, Prescott, United Kingdom;* [3]*EIO, Senology, Milan, Italy;* [4]*University of Genoa, Geriatrics, Genoa, Italy;* [5]*Ospedale Galliera, Urology, Genoa, Italy;* [6]*Groningen University Medical Centre, Surgical Oncology, Groningen, the Netherlands;* [7]*Azienda USL 4, Surgery, Prato, Italy;* [8]*U.H. Gasthuisberg, Medical Oncology, Leuven, Belgium;* [9]*Kawakita Hospital, Surgery, Tokyo, Japan;* [10]*University of Liverpool, Public Health, Liverpool, United Kingdom*

Background: The treatment of choice for solid tumour is surgery regardless of age. Geriatric population is rapidly expanding so is the cancer workload. Unfounded fear of higher operative mortality/morbidity for elderly cancer patients is compromising optimal treatment. An instrument able to forecast surgical outcome prior to intervention would facilitate a surgeon to discuss operative risk. A comprehensive geriatric assessment is tested in Preoperative Assessment for Cancer surgery in Elderly (PACE).
Material and methods: PACE started in July 2003. Patients $\geqslant 70$ undergoing moderate, major and major-elective cancer surgery, with minimum Mini Mental Score (MMS) of $\geqslant 18$ are prospectively interviewed two weeks prior to surgery. This interview incorporating MMS, Satariano's Modified Index of co-morbidities, Activities of Daily Living (ADL), Instrumental Activities of Daily Living (IADL), Geriatric Depression Scale (GDS), Brief Fatigue Inventory (BFI) and Performance Status (PS) to assess physical/psychological well being lasted for 20 minutes. Operative risk assessment tools used are: Physiological & Operative Severity Score for enUmeration of Mortality and Morbidity (POSSUM), Portsmouth modification (P-POSSUM), and American Society of Anaesthesiologists Physical Status (ASA). Correlation is done with pathological data and 30 days postoperative morbidity/mortality.
Results: 367 patients from 8 recruiting hospitals (UK, the Netherlands, Belgium, Italy, Japan) with a median age of 76 years (range 70–93) were affected by breast cancer (57%), gastro-intestinal (26%), uro-genital (12%), H&N (1.5%) and 1 ovarian. 31% (114/367) developed postoperative complications. Overall mortality is 2.4% (9/367). BFI ($P < 0.001$), GDS ($P < 0.016$), PS ($P < 0.0001$), and IADL ($P < 0.005$) were associated with 30-day morbidity. Co-morbidities, MMS ADL and ASA have failed to predict complications.
Conclusions: Aspects of PACE relating to depression (GDS), fatigue (BFI) self-care (PS) and activities of daily living (IADL) are the components

associated with morbidity. The low mortality rate observed reflects that moderate/major cancer surgery is feasible in elderly. Further participation from other centre is welcome.

1256 ORAL

The "Comprehensive Geriatric Assessment" (CGA) is an effective instrumental tool for therapeutic decision making and clinical outcome in elderly cancer patients

G. Astara, E. Massa, F. Tanca, G. Gramignano, A. Stara, C. Spiga, L. Pani, M.R. Lusso, L. Deiana, G. Mantovani. *University of Cagliari, Department of Medical Oncology, Cagliari, Italy*

The aim of this study was twofold. The first aim was to verify the correlation between the single instruments of CGA and the most significant variables of neoplastic disease (stage, ECOG). At May 2005, 209 patients (mean age 72.4 years; range 65–93) with cancer at different sites have been evaluated at baseline using the CGA. The Spearman's correlation test has highlighted a correlation of: 1) cognitive function (evaluated with MMSE) with PS ECOG ($p < 0.001$), 2) age with IADL ($p < 0.0009$), 3) age with PS ECOG ($p < 0.006$). The second aim was to verify the feasibility of using the CGA as an effective instrumental tool for therapeutic decision making and clinical outome in elderly cancer patients. A prospective study was designed in July 2004 and it is currently underway.
The therapeutic decision making was based on the patient assignment to the following 3 groups: 1) "fit" patients were assigned standard chemotherapy as for adult patients, 2) "intermediate" patients were assigned tailored (chemo) therapy, 3) "frail" patients were assigned monochemotherapy (as "supportive therapy") or only "supportive therapy". At May 2005, 35 patients were enrolled: mean age 74.0 years, range 65–82, M/F 20/15. Thirteen patients are currently evaluable, 7 are currently under treatment and are too early to be assessed and 15 received only supportive therapy and died early. Four out of 13 evaluable patients were "fit", 5 "intermediate" and 4 "frail". As for protocol the 4 patients "fit" completed the standard chemotherapy treatment and the outcome was as follows: 1 CR, 2 PR and 1 SD. The 5 patients "intermediate" completed tailored chemotherapy: 1 is NED, 2 SD and 2 PD (1 alive and 1 dead). Three out of 4 patients "frail" received "supportive chemotherapy" and 1 only radiation therapy: all patients completed the treatment and the outcome was: 1 SD and 3 PD (1 alive and 2 dead).
Comprehensively, 10 out of 13 evaluable patients are alive and 3 are dead. The median follow up duration was 5 months. The terapheutic choice based on CGA assessment has shown to be effective in terms of clinical outcome and particularly patient compliance: indeed, only 1 patient had to reduce the dose of the scheduled therapy due to toxicity. Further on in the study it will be interesting to make a comparison between the 3 groups in terms of clinical outcome as well as patient compliance. The study is in progress.
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1257 ORAL

Factors determining the treatment plan for early breast cancer patients aged 70+: an audit of patients at Southend General Hospital, UK.

L. Johnson[1], M. Phillips[2], A. Robinson[2], E. Hall[1], J. Bliss[1]. [1]*Institute of Cancer Research, Sutton United Kingdom;* [2]*Southend Hospital, Southend, United Kingdom*

Aim: to evaluate factors determining the treatment of early breast cancer patients aged 70+, and to assess acceptability and tolerability of chemotherapy (CT), in anticipation of activating the proposed Adjuvant Cytotoxic Chemotherapy In Older Women (ACTION) trial.
Method: Patients diagnosed between 01/04/2004 and 30/09/2004 were identified from Multi Disciplinary Meetings and Surgical Department records. Demographic, pathological and treatment data were collected for all patients. Toxicity data were collected for patients receiving CT. Univariate analyses (Fisher exact tests and T tests) of clinical prognostic factors and other demographic features were carried out to identify factors associated with treatment plan.
Results: 58 eligible patients were identified, of whom 40 (69%) had primary surgery. Of these, 14 (35%) were offered CT (4 cycles of 3 weekly AC, as per proposed ACTION trial). 7/14 (50%) patients accepted CT.
Lower age was significantly associated with receiving primary surgery (mean age (SD) 77.2yrs (4.5) vs 82.9yrs (7.1); $p = 0.005$), being offered CT (mean age (SD) 75.7yrs (4.2) vs 79.8yrs (6.1); $p = 0.02$) and accepting CT (mean age (SD) 72.8yrs (2.2) vs 78.6yrs (3.8); $p = 0.005$). Patients with Grade 3 tumours were more likely to be offered CT, (11/14 [79%] vs 7/44 [16%] $p > 0.001$). ER negative status was not strongly related to being offered CT (7/14 [50%] vs 34/44 [77%]; $p = 0.09$). There was no association between receiving surgery and living alone (18/40 [45%] vs 12/18 [67%] $p = 0.13$). However, living alone was strongly associated with being offered CT (3/14 [21%] vs 27/44 [67%]; $p = 0.01$) but not with accepting it (1/7 [14.3%] vs 2/7 [29%]; $p = 1.00$), however this is based on very small numbers. The association with living alone and offering CT was not confounded by age as the association remained after adjustment for age ($p = 0.03$) There was no association between pathological tumour size or comorbidity and patients receiving surgery, being offered CT or accepting CT.
All 7 patients who accepted chemotherapy received 100% dose intensity and none experienced grade 3/4 toxicity (age range 70–77).
Conclusions: Although the number of patients receiving CT was small, this audit offers encouraging data on the toxicity profile of the CT regimens in the proposed ACTION trial. Factors most likely to limit recruitment are age and failure to undergo primary surgery, however failure to undergo surgery is strongly associated with greater age.

1258 ORAL

Renal insufficiency in cancer patients: Prevalence and implications for anticancer drugs management. Preliminary results of the "IRMA" study

V. Launay-Vacher[1], S. Oudard[2], C. Le Tourneau[3], N. Janus[1], O. Rixe[4], X. Pourrat[5], J. Gligorov[6], J. Morere[7], G. Deray[1], P. Beuzeboc[3]. [1]*Pitie-Salpetriere Hospital, Nephrology, Paris, France;* [2]*Hopital Europeen Georges Pompidou, Medical Oncology, Paris, France;* [3]*Institut Curie, Medical Oncology, Paris, France;* [4]*Pitie-Salpetriere Hospital, Medical Oncology, Paris, France;* [5]*Troussau Hospital, Pharmacy, Tours, France;* [6]*Tenon Hospital, Medical Oncology, Paris, France;* [7]*Avicennes Hospital, Medical Oncology, Bobigny, France*

Background: Only few data are available on the prevalence of renal insufficiency (RI) in cancer patients. Since approximately one half of anticancer drugs are predominantly excreted in the urine, dosage adjustment of those drugs in such patients is a crucial issue. The IRMA study (Insuffisance Rénale et Médicament Anticancéreux) was thus started in March 2005 to investigate the prevalence of RI in cancer patients and the profile of the anticancer drugs they received.
Material and methods: Data were collected for in- and outpatients with cancer presenting over two periods of time (February 1st-15th and October 1st-15th, 2004): sex, age, weight, serum creatinine (S_{CR}), serum urea nitrogen, serum albumin, measured creatinine clearance, measured glomerular filtration rate (GFR) when available, type of tumour, bone or visceral metastasis yes/no, anticancer drugs and dosages. Dialysis and myeloma patients were not included. 1435 patients were included from 5 anticancer centres. The prevalence of S_{CR} >110 μmol/L was estimated. Cockcroft-Gault GFR was calculated with and patients were classified according to their calculated GFR and the K/DOQI stages of RI: 1: GFR ⩾90 mL/min, 2: 60–89, 3: 30–59, 4: 15–29. Among anticancer drugs prescribed, those necessitating dosage adjustment were identified according to their pharmacokinetics and available recommendations from the literature and their SmPCs. Drugs for which there were no data available were labelled as "necessitating dosage adjustment".
Results: The prevalence of elevated S_{CR} (>110 μmol/L) was 5.3%. The prevalence of decreased GFR in those cancer patients was 62.8%. There were a total of 2386 prescriptions on 53 different drugs (INN). Two-third of the drugs needed dosage adjustment (69.8%), representing half the total number of prescriptions (54%). Finally, almost three-quarters of the patients (72.3%) were receiving at least one drug for which dosage adjustment was mandatory in patients with RI.