Conclusions: The immunohistochemical expression of p53 protein does not seem to predict tumor response to chemotherapy and does not have any influence in prognosis for children with OS. The most reliable prognostic factors were the presence of metastasis at diagnosis and the tumor necrosis after chemotherapy. There is a need to search for earlier prognostic factor in children with OS.

1233 POSTER

Temozolomide in resistent or relapsed neuroblastoma

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Purpose: We report the results of a feasibility study of a study investigating the role of oral temozolomide (TMZ) in relapsed or resistant neuroblastoma at the dosage of 215 mg/m^2/day × 5 days, or 180 mg/m^2/day × 5 days in pts with prior autologous bone marrow transplantation (ABMT).
Patients and methods: 17 children with resistant or relapsed neuroblastoma were enrolled. 12 had bone marrow involvement and 5 had localized disease. All pts were pre-treated, 106 outpatient courses were administered, with a median of 4.8 courses/pt.
Results: Overall response-rate (CR+PR+MR) in our series was 11.7% (1 CR, 1 MR), SD was observed in 9 patients and PD in 6. The median survival was 7.8 months (range 1–41). Bone marrow responses were 1 VGPR, 1 PR, 5 SD and 5 PD, according to INRC. We have 1 CR and 1 AWD at 37 and 41 months respectively. Haematological toxicity grade 3–4 was observed.
Conclusion: The results obtained in patients with NB, suggest that TMZ might be useful in the setting of minimal residual marrow disease control. Combination therapy with other agents should also be investigated.

1234 POSTER

5 years results of complex treatment high-risk medulloblastoma in children older 3 years with protocol M-2000

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Materials and method: 93 patients with high-risk medulloblastoma 3–15 years of age (median 8 years), 64 boys and 29 girls, were randomized: 46 patients received cyclic polychemotherapy (PCT), 47 – supporting. 19 patients had total removal of the tumor, 74 patients – subtotal. Mts (stages M1-M3) at the time of the diagnosis were found in 52 patients (M1 – 2 patients, M2 – 8 patients, M3 – 22 patients). Radiotherapy (RT) were started at 14–21 days after surgery: craniospinal 35 Gy, posterior fossa – 55 Gy, bust on Mts 10 Gy; with VCR 1.5 mg/m^2 weekly and CCNU 100 mg/m^2 on week 1 of RT. PCT carried out on 4 weeks after RT. Cyclic PCT – 2 alternating cycles each 3 weeks, altogether 4 cycles (1-st cycle: VCR 1.5 mg/m^2 days 1, 8 and Cph 1500 mg/m^2 days 1, 2; 2-nd cycle: VP-16 150 mg/m^2 days 1, 2, 3 and CDDP 70 mg/m^2 day 1). Supporting PCT – 8 cycles each 6 weeks (VCR 1.5 mg/m^2 days 1, 8, 15, CCNU 75 mg/m^2 and CDDP 70 mg/m^2 day 1).
Results: Overall response was seen in 87 patients: CR – 82 (94.3%) patients; PR – 3 (3.4%) patients, 2 (2.3%) patients had PD. Median observation – 19 months. PFS and OS at 5 years – 78±0.07% and 887plusmn;0.04%, respectively. PFS was higher in patients without Mts – 91% vs. with Mts – 53% ($d < 0.05$). PFS was higher in children older 6 years, than under 6 years: 81% and 75%, respectively ($d < 0.05$). Patients who have received the protocol without reduction of RT or/and PCT dozes and in timing according to the protocol had the best PFS: 91% vs. 57% ($d < 0.01$). There was no statistic difference in PFS between patients who received cyclic or supporting PCT (73% vs. 85%, $d < 0.9$). The volume of surgical removal (total or subtotal) had no influence on PFS (60% vs. 83%, $d<0.05$).

1235 POSTER

Catheter-related thrombosis in children with solid tumor

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Aim: to determine the prevalence of catheter-related thrombosis in children with cancer.
Patients and methods: children with solid tumor and central venous lines (CVLs), admitted as day care in a period of 3 months, were consecutively enrolled. All the patients (pts) were evaluated by physical examination and biochemical serum analyses including fibrinogen and antithrombin tests. Vessels patency and wall regularity were evaluated by grey scale and eco-color-doppler ultrasonography. Thrombophilia factors were studied in pts with venous thrombosis (VT), both symptomatic and asymptomatic. Thirty-three pts (10 females and 23 males) – mean age 115 months (range 6–252) were enrolled. They were affected by Neuroblastoma (10), Sarcoma (7), Brain tumor (5), Lymphoma (6), Epatoblastoma (1), Langherans' cells histiocytosis (1), Retinoblastoma (1), Malignant Teratoma (1), Wilms' tumor (1). The mean duration of catheter placement was 7 months (range 1–19). Thirty-one pts had Groshong CV 5 Fr or 7 Fr and 2 Broviac 4.2 Fr. No pt received L-asparaginase; 11 pts received corticosteroid therapy.
Results: Four of 33 (12%) pts had VT, 3 of these had asymptomatic and catheter-related VT visualized by sonography, while 1 pt had clinically symptomatic and no catheter-related VT. All these pts received thrombophilia tests that showed: – Abnormal prothrombin gene (prothrombin G20210 A) in 1 pt – Mutation of Plasminogen activator inhibitor-1 (PAI-1): mutation of 4G/5G with hypofibrinolysis in one pt-Hyperhomocysteinemia correlated with MTHFR mutation with T677 and A1298C variants in one pt – Factor V Leiden presence (G1691A) and factor V mutation H1299R) in one pt.
Conclusion: 1) In our series, 12% of pts presented VT. 2) VT was asymptomatic and catheter-related in 10%. 3) In all of these pts thrombophilia genetic risks were found.
CVLs is related to an increasing risk of thrombosis in children with solid tumors. The clinical relevance of genetic risk has to be estabilished. Prospective and multicentric studies are required in order to select patients need prevention strategies.

1236 POSTER

FDG-PET imaging for staging and follow-up of malignant paediatric sarcomas: preliminary results of a prospective multicenter study

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Aim: PET evaluation for staging and therapy control of pediatric sarcomas.
Material and methods: In this study 16 patients (9f, 7m; mean: 12.8y., range 1–17y.) with sarcoma (Osteosarcoma n = 4, Ewing n = 7, Rhabdomyosarcoma n = 5) were enrolled. A total of 41 PET scans for staging (n = 16), therapy monitoring (n = 16) and restaging at least 3 weeks after therapy (n = 9) were performed. Results were compared with conventional imagine modalities (CIM: ultrasound, chest X-ray, CT, MRI) according to EURO Ewing 99, COSS 96 and CWS 02P. Histology (n = 12) and/or clinical and imaging follow-up (n = 15) served as reference endpoint.
Results: For detection of primary tumours PET and CIM were equally effective as all 16 histologically proven primaries were found by either method. 8/16 pts. had initially detected metastases (lung n = 2, regional n = 2, distant and/or multiple n = 6). PET revealed 8 pts. true pos. suffering of metastatic diseases but did not discover two lung metastases. CIM however, detected these lung metastases true pos. and 3 other pts. with multiple lesions, although not as extensively as PET.
PET diagnosed 14 pts. with complete (n = 6) and partial (n = 8) therapy response while primary tumour showed significant ($p<0.001$) reduction of SUV_{max} (initial SUV: 8.2 vs. restaging SUV: 2.7). CIM did not correctly diagnose tumour response during therapy in 4 pts. By final examination PET assumed residual lesions in two pts. which must be considered false pos. presently. By CIM residual disease was suspected in 4/9 pts. So far, clinical follow-up did not show any recurrency in all 9 pts., although a larger observation time (presently mean 218 days) is needed.
In summary, PET caused a change of therapy in 7/16 children. 6 received a more intensive therapy due to initial PET and one pt. underwent a less intensive therapy due to metabolic response in PET.