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POSTER

Neuropsychology in the investigation of the nature of the brain function disorders after castration in breast cancer patients

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Goals: The cognitive dysfunctions and other brain functions disorders can be the consequences of the changes in emotional well-being induced with the disease and treatment experience as well as the result of the neuro-endocrine influence on the brain function. Treatment for the estrogen and/or progesterone receptor positive breast cancer in pre-menopausal women supposes the castration ovarian ablation or tamoxifen use. The aspects of post-castration syndrome in both varieties – medication and surgery – can lead to the decrease in the cognitive functioning. The most evident and early symptoms of post-castration syndrome are the psycho-emotional changes. There is the evidence of the cognitive problems in this group of the patients. The qualification of these problems should be the subject of neuropsychological investigation.

Method: In 64 breast cancer patients the complex neuropsychological investigations (Luria's method) and examination of the emotional well-being (standard questionnaire) were carried out before and after castration (in 18 weeks). The anxious and depressive disorders were psychologically treated in short course and then the third neuropsychological complex study was carried out.

Results: The results show the significant decrease in cognitive functions in 78% of the patients. In a half of these cases the deficit of programming and control is evident as the main factor of the neuropsychological syndrome. In 34% of the patients the deficit of the activation is evident as neuropsychological factor. In 31% of the patients the psychotherapy reduces the anxiety level and in 24% of the patients it leads to the better scores in memory and movement tests with additional motivation escalation.

Conclusions: In the structure of the mental disorders there is specific input of the programming and activation disorders as neuropsychological factors. The secondary emotionally induced changed can be reduced with the psychological help.

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Primary central nervous system lymphoma in Japan: changes in clinical features, treatment and prognosis during 1985–2004

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Background: We have conducted nationwide surveys of primary central nervous system lymphoma (PCNSL) treated since 1985 in Japan. Results obtained for patients seen between 1985 and 1994 and between 1995 and 1999 were published. In the present study, we conducted further investigations of PCNSL patients treated between 2000 and 2004, and compared their clinical features, treatment details and outcome with those of patients seen in the preceding two periods.

Materials and Methods: A total of 739 patients with histologically-proven PCNSL were analyzed. Seventeen institutions were surveyed, and data on 131 patients treated between 2000 and 2004 were collected. These data were compared with updated data of previously obtained ones on 466 patients treated between 1985 and 1994 and 142 patients treated between 1995 and 1999.

Results: Recent trends towards decrease in the male/female ratio (approaching unity), increase in aged patients, and increase in patients with multiple lesions were seen. Regarding treatment, decrease of surgical tumor removal and increases of the use of intravenous chemotherapy and methotrexate-containing regimens were observed. The median survival time was 18, 29 and 24 months in patients treated between 1985 and 1994, those treated between 1995 and 1999, and those treated between 2000 and 2004, respectively, and the respective 5-year survival rate was 15%, 30%, and 30%. The survival data in the more recent two periods were significantly better than those in the oldest period. Higher age, poorer performance status, and high lactate dehydrogenase level were associated with poor prognosis in all the periods. In patients treated between 1995 and 1999 and those treated between 2000 and 2004, those who received systemic chemotherapy had better prognosis than those who did not. This was supported by multivariate analysis for patients in the most recent period. There was a trend towards improved survival in patients receiving methotrexate-containing chemotherapy in the recent decade.

Conclusions: This study revealed several notable changes in patient, tumor and treatment characteristics during recent years. The prognosis of PCNSL patients improved during recent 10 years.

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Radiotherapy and concomitant Temozolomide, with or without adjuvant Temozolomide in the treatment of glioblastoma multiforme

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Introduction: For decades treatment of glioblastoma multiforme (GBM) has consisted in maximum surgical resection followed by possible radiation therapy (RT). In a recent study published by EORTC and NCIC, it was demonstrated that the combination of concomitant and adjuvant Temozolomide (TMZ) with RT improved survival against exclusive RT. Nevertheless, important questions are still raised about the optimum administration of TMZ.

Objectives: This retrospective study was carried out to detect possible differences in survival of patients between treatment with RT and concurrent TMZ, and the same treatment followed by adjuvant TMZ.

Materials and Methods: in January 2001, concurrent treatment with RT and TMZ was begun in patients with GMB in our centre. Following maximum possible surgical resection, the first 12 patients received 3D conformed RT, 60 Gy (2G/day) and 75 mg/m² TMZ, daily throughout the duration of RT. In January 2002, and up to December 2004, this approach was modified, associating systematically 6 cycles of adjuvant TMZ (150–200 mg/m²/day) for 5 days (every 28) in the next 27 patients. The 39 patients included in the 2 successive periods were the object of this study, the main aim being to carry out a comparative analysis of survival.

Results: The median survival time for the whole series was 9 months, with significant differences amongst those treated with combined RT and concomitant TMZ: 6m (5–7); and RT with concomitant and adjuvant TMZ: 14 m (6–22m), p=0.01. When considering other variables (age, type of surgery, and adherence to TMZ), multivariate analysis of survival with Cox regression models showed that adjuvant TMZ and compliance of ≥75% to TMZ treatment were the only significantly independent variables.

Conclusion: Our findings suggest that the administration of combined RT with concomitant and adjuvant TMZ in treating GMB results in higher survival rates than RT and concomitant TMZ, though it is necessary to carry out a prospective randomised trial to demonstrate this hypothesis.

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POSTER

Prolonged maintenance chemotherapy with Temozolomide (TMZ) after concomitant treatment in newly diagnosed GBM: safety profile

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Background: TMZ concomitant to RT followed by 6 cycles of adjuvant TMZ has become standard of care in the treatment of newly diagnosed GBM, obtaining a statistical significant survival benefit over radiotherapy alone. In this study concomitant and adjuvant part, demonstrated grade 3–4 hematological toxicity in 7% and 14% of patients respectively.

Methods: Adult GBM patients were treated with TMZ (75 mg/m²/day) concomitant to RT (60 Gy/30F) followed by adjuvant TMZ (150–200 mg/m² days 1–5, q28). Adjuvant TMZ was continued for a maximum of 12 cycles in patients with no evidence of disease and until progression in patients with evidence of disease. Prophylactic trimetoprim-sulphamethoxazole 3 times weekly was administered.

Results: 104 patients (67 males), median age 53 (range 20–73), median KPS 90 were enrolled. A median of 6 cycles of adjuvant TMZ were delivered (range 0–30). During the concomitant phase, grade 4 neutropenia occurred in 1 patient (0.9%), and grade 3–4 thrombocytopenia in 4 patients (3.8%). Grade 1 to 2 lymphocytopenia occurred in 10 patients (9.6%). One patient reported pneumonia with normal white blood cells. Five patients (4.8%) discontinued treatment in the concomitant part: 2 for grade 3 dermatological rash, 2 for haematological toxicity (one for prolonged grade 4 thrombocytopenia resolved in 6 weeks, and 1 patient for grade 4 neutropenia and thrombocytopenia, still unresolved after more than 15 months). One patient died after concomitant treatment for pulmonary embolism. During the adjuvant phase, grade 3 to 4 neutropenia and thrombocytopenia occurred in 2% and 5% of patients, respectively. Two