

442 pairs of films for 226 patients were analyzed.

Results: For 35 patients action level was exceeded (gynecologic 13, prostate 2, rectum 6, breast 7, brain 5 and lung 2). For 10 patients the second portal film was significantly different from reference film and simulation was repeated. Only in 5 cases systematic errors were found (gynecologic 2, rectum 2 and brain 1). PIPS-PRO software is proven to be a very useful tool for portal control.

43.

NEOADJUVANT RADIOTHERAPY OF EPIDERMIOID LUNG CARCINOMA PATIENTS UNDER SHORT TERM HYPOXIA CONDITION

**A. Nazarenko, G.V. Goldobenko,
S.I. Tkachev, S.M. Ivanov**

Cancer Research Centre, Radiation Oncology,
Moscow

Main method of treating the epidermoid lung carcinoma patients is a surgery which gives a 5-year survival of 53–70% of patients with 1 and 2 stage of disease. However, if metastases in lymphatic nodes of mediastinum are present then number of patients surviving this period considerably decreases. To increase surgery effectiveness one seeks the combined therapy methods using, in particular, neoadjuvant radiotherapy. We have studied such a therapy method which is to be applied during the pre-operative period of hypoxiradiotherapy. Date of 237 epidermoid lung carcinoma patients has been analyzed, mainly for the 3-d stage of disease: 1-st group of 123 patients was given a surgery treatment, the second one, of 114 patients, received an additional intensive pre-surgery radiation (5 Gy daily, 20 Gy) under condition of a short term hypoxia of a short term hypoxia caused by a gas mixture of 10% of oxygen and 90% of nitrogen. Surgeries were carried out during the first 3 days after the completing the radiation treatment. Mechanical conditions of the surgery procedure, blood losses and after surgery complications were similar in both cases. The number of cases of general radiation reactions decreased 3 times, all the cases being limited to the 1 and 2 degrees on the RTOG scale. After analysis of deferent factors, which define the result of treatment, significance the most reliable were the size of primary lesion and presence of mediastinum lymphatic nodes metastasis. Was shown rising of 3-year survival

rate after combined treatment vs. operative treatment only.

44.

RADIATION THERAPY IN THE TREATMENT OF PARTIALLY RESECTED LOW-GRADE CEREBELLAR ASTROCYTOMAS IN ADULT PATIENTS

E. Pluta, B. Gliński, J. Nowak-Sadzikowska

Department of Radiation Oncology of Maria Skłodowska-Curie Memorial Center in Kraków

Between 1975 and 1995, ninety two adult patients received postoperative irradiation for subtotally resected cerebellar tumours, of which 31 were low-grade (I-II) astrocytomas. The median dose of 51 Gy was given. 29 patients showed good tolerance to treatment. The overall 5 and 10-year actuarial survival rates were 78% and 61 % respectively. Age of patients had the strongest influence on prognosis. Young patients (up to 20 years) achieved the 10-year overall actuarial survival rate of 85%, while older patients had poorer survival with the 10-year overall actuarial survival rate of 46% ($p=0.0205$).

45.

IMPACT OF Hb LEVEL DURING POSTOPERATIVE RADIOTHERAPY OF PATIENTS WITH LARYNX CANCER

**P. Milecki, S. Nawrocki, G. Stryczyńska,
A. Kruk-Zagajewska, D. Fundowicz**

Greatpoland Cancer Centre, Medical University,
Poznań

Aim: assessment the influence of low level of Hgb on the locoregional outcome of postoperative radiotherapy patients with advanced cancer of larynx.

Material and methods: An retrospective analysis of two hundred fifty four patients with larynx carcinoma with stage III or IV squamous cell carcinoma of larynx who were treated between January 1993 and December 1996 was performed. Postoperative radiotherapy was performed in conventional way to total dose of 60 Gy, 5 times a week. Of 254 patients, 86 patients (34%) were considered to have a low level of hemoglobin (below 13 g/dl) prior the beginning of radiotherapy and 56 patients (22%)

at the end of treatment. We have noted also 38 patients (15%) of 254 patients, with decreasing hemoglobin level during treatment higher than 1 g/dl.

Results: No impact on outcome of treatment was observed in the group of patients with low level of Hgb before irradiation. Increase of locoregional failure of postoperative radiotherapy was noted in group of patients with Hgb level at the end of irradiation below 13 g/dl ($p = 0,004$) and also in group of patients with decreasing of Hgb level during treatment ($p = 0,038$).

Conclusions: Low Hgb levels at the end of postoperative irradiation and decreasing during irradiation were associated with a statistically significant increase in locoregional failure of patients with advanced carcinoma of larynx.

46.

STEREOTACTIC MAMMOTOME BREAST BIOPSY – ANALYSIS OF RESULTS

P. Murawa, T. Fedorowicz, R. Kobylarek, W. Nowakowski, J. Wasiewicz

I Oddział Chirurgii Wielkopolskiego Centrum Onkologii, Poznań.

The purpose of work is to assess stereotactic mammotome biopsy technology in diagnostics of nonpalpable breast lesions. In the period from April to December 2000 mammotome biopsy procedure was performed on 395 female patients at the I Oncological Surgery department the Great Poland Cancer Center in Poznań. In all patients, diagnosed lesions were non-palpable and categorised as BI-RADS III, IV, V. Patients were aged between 16 and 78 (average 52.6 years). They divided into three groups depending on radiological characteristics of the examined lesions - separate analyses were carried out for patients with microcalcifications suspicious tumours and radial scar. Diagnostic examination was performed on an ambulatory basis. Procedure was carried out on a Fischer mammotome table using the Mammothome Biopsy System. The Cancers were detected in 17 % cases. All patients with diagnosed cancer underwent further surgical procedure. In 83 % patients in whom benign lesions were found mammography screening was recommended at 6 month intervals. The Stereotactic Mammothome Breast Biopsy System is a sensitive, minimally invasive diagnostic technology characterised by: very high diagnostic precision, minimal traumatization of

surrounding tissues, excellent cosmetic effect, economical procedure.

47.

ALLOGENEIC BONE MARROW TRANSPLANTATION IN CHILDREN WITH ACUTE LYMPHOBLASTIC LEUKEMIA IN FIRST AND SECOND COMPLETE REMISSION CONDITIONED WITH FRACTIONATED TOTAL BODY IRRADIATION AND ETOPOSIDE OR CYCLOPHOSPHAMIDE

J. Wachowiak¹, J. Malicki², D. Boruckowski¹, G. Stryczyńska², G. Kosicka², M. Leda¹, A. Pieczonka¹

HSCT Unit, Institute of Pediatrics¹ & Great Poland Cancer Center², Poznań, Poland.

Patients and methods: From 1993 to 2001 thirty two children underwent bone marrow transplantation (BMT) for ALL (12 in I CR and 20 in II CR after early BM or BM/organ relapse). Except 2 syngeneic all other were HLA-identical siblings transplants. All patients (pts) were conditioned with FTBI 2 x 1,5 Gy for 4 days (total dose 12 Gy) with lung shielding (9 Gy) and CY 60 mg/kg *i.v* for 2 days (total dose 120 mg/kg) ($n=1$ in I CR and $n = 11$ in II CR) or VP 60 mg/kg *i.v* ($n = 11$ in I CR and $n = 9$ in II CR). Pts in I CR have been given $1,1-4,9 \times 10^8$ MNC/kg (med. $2,7 \times 10^8$ /kg), while pts in II CR $1,9-4,0 \times 10^8$ MNC/kg (med. $2,7 \times 10^8$ /kg). For GvHD prevention CsA 3 mg/kg/d *i.v* was administered alone in 22 pts ($n = 9$ in I CR and $n = 13$ in II CR) or in combination with "short" MTX +/- PRED in 8 pts ($n = 3$ in I CR and $n = 5$ in II CR). Two pts transplanted with syngeneic BM received no GvHD prevention. Regimen related toxicity (RRT) was graded according to the system developed by Bearman *et al.* (1988).

Results: Only mild or moderate expression of RRT was observed (GI toxicity I⁰ - 80%, II⁰ - 4%; stomatitis I⁰ - 40%, II⁰ - 20%; hepatic toxicity I⁰ - 28%; renal, bladder and cardiac toxicity I⁰ - 4%) and no transplant related deaths occurred (TRM = 0%). Among 12 pts transplanted in I CR only one child relapsed 4 months from BMT, while remaining 11 pts are alive in CCR with a median follow-up of 33 months (range 6 to 66 months) and 92% probability of 5-year EFS. Of 20 children transplanted in II CR 6 relapsed 1-14 months from BMT (median 6,5 months). Fourteen of