metastases (p = 0.001), AGESp.s. (p = 0.0095) and age at diagnosis (p = 0.0278) as significant prognostic factors of survival. The same model showed that initial distant metastases (p = 0.008) and AGESp.s. (p = 0.035) strongely influenced the relapse of disease. The extent of initial surgery influenced occurrence of relapse with the significance of p = 0.052.

Conclusion: TT with dissection of central and lower jugular lymph nodes for frozen-section histology in PTC might decrease the relapse rate. Also, it enables diagnosis of lymph node metastases and precise surgical staging of disease.

839 PUBLICATION

Kinetics parameters of radioiodine accumulation and excretion upon the sequential radiotherapy courses of patients with differentiated thyroid cancer

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Purpose: To study the parameters of radioiodine accumulation and excretion kinetic during the sequential courses of radioiodine treatment.

Methods: 20 patients with differentiated thyroid cancer have been undergone several successive courses of radioiodine treatment after surgery (activities administered amounted to 2000 MBq. Radioiodine has been shown to accumulate only in thyroid remnants. Kinetic parameters of radioiodine excretion and accumulation have been calculated on the basis of scintigraphy data during 1 and 2 courses. Teff. in thyroid remnants and blood has been calculated by the least square technique during 4 days after the beginning of the treatment. Radioiodine accumulation in c.p.m. over the shoulder has been considered as radioiodine blood content and has been substracted from radioiodine accumulation over the maximal thyroid tissue depth (S).

Results: Kinetic parameters have been shown to decrease in the course of sequential treatment, the average values being Teff in thyroid remannts$_1$ = 3.7 d, Teff$_2$ = 2.7 d, p = 0.19; Teff in blood$_1$ = 1.74 d, Teff$_2$ = 1.30 d, p = 0.18; S_1 = 2245 c.p.m., S_2 = 405 c.p.m.; p = 0.02.

Conclusion: The data obtained signify that it is undesirable to administer higher activities for the repeated courses taking into account decreasing radioiodine accumulation and accelerating excretion. The decrease of these kinetic parameters could result from partial ablation of thyroid tissue or loss of functional activity.

840 PUBLICATION

Adrenal cortical carcinoma – Results of treatment of 17 cases

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Purpose: Adrenal cortical neoplasms are very rare, therefore only a few data are available on treatment and prognosis of these tumours.

Methods: Between 1974 and 1996 seventeen patients (14 males and 3 females) with median age of 55 were operated at the Department of Surgical Oncology. Different symptoms as pain, weight loss were present in all patients with median time of 4 months. Nine patients (7 males) had hypercorticolic hormonal symptoms. Tumours were usually big withn median size 6 cm (range 3–20 cm). In 7 patients pathologic diagnosis was established preoperatively by fine needle biopsy, other cases had pathologic examination after resection.

Results: Most patients (11) underwent radical adrenalectomy using anterior approach, next 4 had adrenalectomy with nephrectomy. In 2 cases radical resection was impossible due to the extensive vena cava or duodenum, spleen and pancreas infiltration and only tumour excisional biopsy was performed. There was one perioperative death caused by postoperative massive haemorrhage Final pathological examination revealed 5 cases of very anaplastic neoplasms and 12 more differentiated tumours. Two patients after nonradical histological resection received adjuvant radiotherapy (median dose 50 Gy) and 4 patients with anaplastic disease were treated with chemotherapy. Between patients with differentiated carcinomas 5-years disease-free survival was 33.3%. There was no long time survival in patients with anaplastic tumours, all of them died during first year post operation. Failures are very common because more then half of all patients (8) developed distant metastases (lung, liver, brain) and 2 patients had local recurrence.

Conclusion: The prognosis in adrenal cortical carcinoma is very bad. Only patients underwent radical surgery with differentiated tumours have chance for long-time survival. There is a need of multiinstitutional study of these neoplasms.

841 PUBLICATION

Postoperative radiotherapy in merkel cell carcinoma (MCC)

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Purpose: The purpose of this retrospective study is to investigate the role of postoperative radiotherapy in primary or recurrent MCC.

Material and Methods: From 1989 to 1997, 10 patients (pts), 4 female and 6 male, aged 65–82 (mean 78) were diagnosed with primary (5 cases) or recurrent (5 cases) MCC. Tumor location were: arms, head, and trunk. All 10 pts underwent radical surgical resection. Radiotherapy was performed 1–3 months after surgery with photons in 8 cases and electrons in 2 cases. Postoperative treatment was delivered to the tumor bed and regional nodes to a total dose of 42–60 Gy (mean 50 Gy), 1.8–2.0 Gy/fx. Treatment time ranged from 29 to 60 days (mean 40 days). Follow-up was 24–60 months (mean 40 months).

Results: Six out of 10 are alive, 5 free of disease and 1 with local recurrence. None of the 5 pts operated for primary tumors and irradiated postoperatively developed local or distant relapse. Among the 5 pts treated postoperatively after onset of recurrent disease, 1 is NED, 1 had local recurrence, and 3 developed regional or distant metestases and died 29, 30, and 53 months after radiotherapy.

Conclusion: This retrospective study, according with other literature data, confirms that loco-regional aggressive treatment including postoperative radiotherapy is effective in preventing local recurrence and possibly improving survival in MCC.