834 POSTER

## A structured algorithm to assess the response to biological therapy in medullary thyroid carcinoma

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Neuroendocrine symptoms of medullary thyroid carcinoma are often refractory to the conventional therapy. We have evaluated the tolerability, the anti-tumour and the symptom relieving activity of slow release lanreotide (30 mg, im, every 14 days for the first 6 months, then shortened from 14 to 10 days) in combination with interferon-alpha-2b (5,000,000 IU, im, 3 times a week) in seven consecutive patients, affected by advanced medullary thyroid carcinoma. The frequency and intensity of daily flushing episodes and bowel movements, intensity of fatigue, weight, performance status, tumour marker levels and change of tumour masses were recorded before and during therapy. The number and intensity of bowel movements and flushing episodes decreased in 5/6 and 2/2 patients, respectively. A decrease of fatigue and an improvement of performance status were observed in 5/7 and 6/7 patients, respectively. A weight gain was detected in 3/4 patients. The plasma levels of calcitonin decreased significantly in 6/7 patients. In order to provide a new tool for the definition of the response to anti-tumour therapy in symptomatic medullary thyroid carcinoma, a structured algorithm for the assessment of clinical benefit and biological response has been designed. According to such criteria, a clinical benefit and biological response were achieved in 6/7 and 3/7 patients, respectively. Disease stabilization and a minor response were observed in 3/7 and 2/7 patients, respectively. The combination of lanreotide with interferon had a major impact on clinical symptoms, it was well tolerated and the use of somatostatin analogues in a slow release form avoided the inconvenience of multiple daily injections.

835 POSTER

## Continuous infusion of 5-fluorouracil (5-FU) in neuroendocrine tumours (NET)

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**Purpose:** We have evaluated the activity in progressive. NET of a commonly used second line treatment in colorectal cancer: continuous infusion of 5 FU.

**Methods:** After documented progression of metastatic digestive NET during first line chemotherapy, patients received 5 FU continuous infusion 200 mg/m$^2$ for 7 weeks, followed by one week rest.

**Population:** 24 patients (pts) (15 men, 14 women), median age: 52 years [31–72]. WHO performance status: 0 = 29% 1 = 46%, 2 = 8%, 3 = 17%. Primary site of the tumour was: pancreatic: 50%, ileal: 12%, colorectal: 13%. Main site of metastases was: the liver: 100% of the pts, lung: 21%, lymph nodes: 17%. 40% of these patients received more than one previous chemotherapy.

**Results:** Mild toxicity: grade 3 leucopenia, neutropenia and thrombopenia: 1 pt (4%), grade 3 or 4 vomiting: 2 pts (9%), grade 3 or 4 more diarrhea: 6 pts (25%), grade 3 or 4 mucositis: 12%, hand-foot syndrome: 8%. One partial response (4%) and 13 stabilisations (54%) were observed, 10 pts (42%) had early progression. Median time of progression-free survival: 10 months. Median survival was 15 months, one-year and two-year survival were 52% and 21%, respectively.

**Conclusion:** Continuous infusion of 5 FU allows long stabilizations in second line treatment of progressive metastatic NET. This treatment can be used in the complex therapeutic strategy of these tumours.

836 PUBLICATION

## Does type of thyreoidectomy and local recurrences influence survival in differentiated thyroid carcinoma?

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**Purpose:** Total or subtotal thyreoidectomy are the treatment of choice in differential thyroid carcinoma. It is not sure if type of surgery influences recurrence rate, and if possible recurrence influences survival.

**Methods:** One hundred and nine patients with pappilar (70) and follicular (39) thyroid cancer were radically operated in Cancer Centre Kraków (1980–94).

**Results:** Total thyreoidectomy were performed in 45 (37.6%) and total lobectomy (at tumour site) combined with subtotal lobectomy (opposite site) in 38 patients. Between them 33 patients had also removed cervical lymph nodes. Subtotal thyreoidectomy (both lobes) or subtotal (one side) lobectomy were performed in 26 cases. There was 8 local recurrences (9.6%) in site after total lobectomy and 5 recurrences (19.2%) in site after subtotal lobectomy ($p < 0.05$). In 4 patients (12.1%) after lymph node dissection nodal recurrences were found during follow-ups. Total survival rates (5, 10 and 15 years) were 97.7% in pappilar carcinoma and 88.4%, 83.2% and 83.2% in follicular carcinoma, respectively ($p < 0.02$). Multivariate Cox analysis showed only type of histology as important, independent parameter influenced survival. Nor type of surgery, nor recurrences did not change significantly prognosis.

**Conclusion:** Subtotal thyreoidectomy increase local recurrence rate, when compared with total resection, but it does not change patients prognosis. Type of histology is the most important prognostic variable in differentiated carcinoma of thyroid gland.

837 PUBLICATION

## Cancers of thyroid gland in Latvia after Chernobyl accident. Patients with post radiation syndrome (PRS)

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**Purpose:** Patients observation with thyroid gland diseases after 10 years since accident occurs. Diagnostics and treatment of those patients.

**Methods:** We observed 150 patients with PRS from those 32 needs surgical treatment caused by diseases of thyroid gland including cancer. The patients operated in our department had spent in average 1.5 months in 30 km zone around reactor. Received radiation dose is unknown.

**Results:** 32 patients (all men 35–55 years of age) with post radiation syndrome (PRS) were operated from 1996 till February 1999 in our clinic. From these 32 patients: 24 cases (75%) – thyroid gland benign tumours from which: 17 cases (70.83%) – cystadenoms, 3 cases (12.5%) – follicular adenomas, 4 cases (16.6%) – papillary adenomas and 8 cases (25%) cancers: 5 cases (62.5%) – papillary adenocarcinomas, 3 cases (37.5%) follicular adenocarcinomas. Only 4% complained about thyroid gland. Hormonal activity was normal. Diagnosis was made by using US and scintigraphy. In 86% cases pre-operation diagnosis with aspiration needle biopsy was proved.

**Conclusion:** For patients with PRS diseases of thyroid gland occurs after 10 years and are practically asymptomatic and there is a high possibility of malignancy (in our experience 25%).

838 PUBLICATION

## Multivariate analysis of prognostic factors for papillary thyroid cancer – Influence of extent of initial surgery

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**Purpose:** The extent of initial surgery for papillary thyroid cancer (PTC) is controversial question. Aim of the study was to evaluate the results of the primary surgical treatment in patinets with PTC, through survival analysis and occurrence of relapse according to prognostic factors.

**Matherial and Methods:** From 1981. to 1997. we have operated 147 patients with PTC; a) Total thyroidectomy (TT) with dissection of central and lower jugular lymph nodes of the neck for frozen-section histology was performed in 110 pts. Out of these in 79 (71.8%) pts, with metastases in lower jugular nodes (forzen-section), modified radical neck dissection (MRND) was performed in the same act; b) only TT was done in 29 pts; c) palliative surgery of locally advanced cancer in 8 pts. Postoperative therapy: external irradiation in 16, $^{131}$I therapy in 28, thyroid hormone in all patients. We analised prognostic factors for PTC:age at diagnosis, gender, tumor grade, tumor size, extrathyroid extension, AGESp.s., lymph node metastases, initial distant metastases and extent of surgery. Statistics: Cox multivariete regression analysis.

**Results:** Overall survival rate in 16 yrs. follow-up was 85.71%. The relapse occurred in 12.9% of cases. Lymph node metastases were found in 80.5%. Cox multivariate regression analysis showed on initial distant

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.