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The long-term side effects of adjuvant radiotherapy vs carboplatin chemotherapy in clinical stage A seminomatous testicular tumors

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Introduction and Objectives: Radiotherapy (Rtx) is associated with an increase risk of 2nd cancer and cardiovascular disease (ds). Because of difficulties in detecting recurrences on surveillance who can occur out to 10 years (y) this institution has introduced carboplatin (CBDCA) chemotherapy (CT) as the treatment of patients (pts) in clinical stage (CS) A seminomatous testicular tumors (STT) and this study analyze late events in these 2 cohorts.

Material and Methods: Between 1982 and 2005, 545 pts in CS-A STT were randomized to receive either Rtx (n = 315) (TD 30 Gy) (Arm A) or 2 cycles of CBDCA CT (400 mg/sqm/q 3 wks) (Arm B) (n = 230).

Results: Arm A – overall relapse rate (ORR) occurred in 13 pts (14.1%) with late relapse (LR) in 4 pts (1.3%) within median free interval (MFI) of 31 months (m). CR following applied therapy in relapse is achieved in 3 pts (75%). 10 pts (3.2%) developed metachronous GCT within MFI of 6.5 y (3 pts had discordant histology, 6 pts underwent surveillance). Late sequels were observed in 24 pts (7.6%): gastric ulcer (2), gastritis (3), ileus (2), dyspepsia (2), myelopathie (1), myelosupression (1) cardiovascular disturbances (3) and fibrosis within Rtx fields (7). 9 pts (2.9%) developed 2nd malignancy within MFI of 5 y: lung cancer (3), lung cancer/non-Hodgkin lymphoma (1), gastric cancer (1), thyroid cancer (1), bladder cancer (1), melanoma (1), ureteral tumor (1). At MFU of 12 y, DSS is achieved in 95.2% pts. Overall mortality rate was 4.8% (1.3% from GCT, 1.9% from 2nd malignancy and 1.9% from other causes). Arm B – ORR was 2.6% with LR in 2 pts (0.9%) within MFI of 31 m. All relapsing pts achieved CR with cisplatin-based CT. Metachronous GCT occurred in 4 pts (1.7%) within MFI of 20.25 m (3 pts had discordant histology, organ preserved operation is performed in 3 pts, surveillance in 3 pts). At MFU of 7 y (38 >10 y, 138 >5 y), DSS was 100%, 1 pt (0.4%) died from lung cancer at 28 m and 1 pt died of cardiovascular disorders at 45 m.

Conclusions: The numbers of cases were too small to be absolutely confident of these figures. However, this data strongly suggests that there are no excess of cancer or cardiovascular deaths in the single agent CBDCA cohort.

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The management of nonseminomous germ cell tumors of testis (NSGCT) stage I with stable increase of tumor markers

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Introduction and Objectives: The optimal treatment regimen for patients with NSGCT stage I with stable increase of alfa-fetoprotein (AFP) and beta-chorionic gonadotropin (b-CHG) after unilateral orchiectomy has not been finally developed.

Material and Methods: From 1998 through 2008 we have followed up 219 patients with NSGCT stage I. In 42 patients (19.2%) after unilateral orchiectomy the markers increased: in 5 patients only AFP increased, in 32 – b-CHG increased, and in 5 patients both markers rose. The length of follow up comprised 6–126 months (median 36 months). In all patients after unilateral orchiectomy the retroperitoneal lymph node dissection had been performed (RPLND).

Results: In 10 out of 32 patients with increased level of b-CHG the retroperitoneal lymph nodes were affected with metastases. In eight patients (25%) the disease progressed in 3–60 months after RPLND. Only in 1 out of 5 patients with increased level of AFP the lymph nodes were affected with metastases. The disease recurred in all 5 patients in 2–12 months after RPLND. Among 5 patients in whom both markers were elevated one patient had been diagnosed with metastasis of embryonic cancer. The disease recurred in 4 patients in 2–14 months after RPLND. In 14 patients among 17 in whom the disease recurred are in complete clinical remission after the course of adjuvant chemotherapy (ChT) during 24–60 months, one patient survives with metastases, and two patients died.

Conclusions: We conclude that stable elevation of each or both tumor markers after unilateral orchiectomy in patients with NSGCT stage I is associated with presence of hidden metastases. The treatment of choice in these patients is ChT till tumor markers get normal.

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Testicular tumour – a review of management

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Introduction and Objectives: Testicular cancer is one of the few solid cancers that can be cured in the majority of cases even when it is metastasized with overall survival rate 89.3%.

Aim: To establish the age adjusted incidence of testicular cancer.

To critically assess the management of testicular tumour (diagnostic, Medical and surgical Aspects) in a tertiary referral centre covering an area with a population catchments of more than 300000 and in-line with the applied clinical guidelines.

Material and Methods: It is a retrospective study, 109 cases are included, representing all those who underwent orchidectomy for the period from 2002–2005, no age group is specified. Complete review of pathology types, cancer staging, management plans and follow up plans.

Results: This study has concluded that there is no substantial difference between the crude and the age standardised incidence, moreover no difference from the reported crude incidence by the Scottish intercollegiate guidelines. All patients were seen with 1–2weeks from referral. In terms of tumour types we found (55.1%) seminoma, (14.28%) Non-seminoma and (30.61%) combined (seminoma and non seminoma).

Stage I disease in 61.22% of cases, stage II in 36.73% of cases stage IV in 2.04%cases. Most of the cancers were in the age group (20–50) with the majority (48.97%) in the age group (31–40). 42.85% of cases were identified with high tumour markers; out of these: Alpha feto protein was high in 14.28% of cases; Beta HCG was high in 16.32% of cases and both reported as high in (12.24%) of cases and one case was not reported. In terms of pre orchidectomy ultrasound, (2.12%) of cases reported as inflammatory area, (4.25%) of cases reported as cystic area with (8.16%) of cases did not have ultrasound scan before their orchidectomy with the rest reported suspiciously. C.T. Scan was performed 2–3 weeks post orchidectomy in 100% of cases.

Higher percentage of seminoma at stage II (40.74%) compared to the internationally published percentages. Only 2% of cases had scrotal orchidectomy with the rest all had radical inguinal orchidectomy. All stage management were compliant with the guidelines understudy except for stage I mixed cell tumour were surveillance was utilised as initial management option for cases which require more aggressive action and that did lead to cancer relapse.

Conclusions: All stages management were compliant with the current available guidelines except for mixed tumour stage I. Highly curative rates can be attained by all three modalities. Standard treatment with radiotherapy is challenged by surveillance and chemotherapy. Higher percentage of cases with mixed cell tumour as well as Stage II seminoma.

Poster session 4: Benign and Malignant renal diseases and Kidney transplant
Friday, 23 October 2009, 14:30–16:30
Poster room 1

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Nephron sparing surgery for renal cancer – expanding indications and advancement in minimal invasive surgery

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Introduction and Objectives: A program for the nephron sparing treatment of kidney tumours was established at our institution in January 1992, laparoscopic approach is used since September 2004. As of June 2009, 302 open resection and 68 laparoscopic resection have been accomplished.
Material and Methods: Since 1992 to June 2009 1340 patients were treated for renal tumours, 370 (27.6 %) underwent tumour's resection.
Results: Nephron sparing surgery composed approximately 23.5±11.8 % per a year. It was 8.0 % in 1992, 25.5 % in 2000 and 40.3 % in 2008. There is so higher application of nephron sparing surgery and lower in nephrectomy, regress equation for nephrectomy: y = -0.02x + 0.9552 vs. y =.0.02x + 0.0448 for resections; reliability value 0.8123. We did not find any statistical significant differences in operation time (mean 115±28 min), but there is a higher application of category T1b (0 % in 1992 vs. 22.7 % in 2000 vs. 32.3 % in 2008). We provided only open surgery for T1b.
Conclusions: Way to relatively good results of nephron sparing surgery is in careful selection of tumours using two phase CTA and superspecialisation of surgeon. OR still remains gold standard in nephron sparing surgery maily in bigger tumours.
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Prognostic factors and survival of clear cell renal carcinoma patients with bone metastasis

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Introduction and Objectives: The clinical factors influencing the survival of renal clear cell carcinoma patients with bone metastasis was examined in a retrospective study setting.
Material and Methods: We analyzed the data of 65 patients operated between 1990 and 2008. Descriptive statistical method was also utilized, clinical data regarding survival were evaluated with Life table and Kaplan-Meier method, moreover, for multivariable analysis Cox regression method was applied.
Results: Based on Kaplan-Meier curves age, sex, clinical symptoms, pathological fracture, progression to the soft tissues, localization of tumor (spinal metastases are excluded), size of metastasis, whether the occurrence of multiplex metastases is multiorganic or localized in the skeletal system only, and the stage and grade of the primary renal cancer did not influence the survival. The survival was significantly improved if the bone metastases were late onset (occured more than four years after the renal surgery); moreover, it was solitary, Fuhrmann grade 1 and radical surgery was performed. Based on Cox regression analysis, the results indicated that survival after bone surgery was influenced by the multiplicity and grade of metastasis and radicality of the surgery, whereas survival after nephrectomy was significantly influenced by the time of onset and grade of metastasis. As for the patients surviving bone surgery more than five years, there were more patients who had solitary, grade 1 metastases operated on by radical surgery than in the group where patients died earlier than five years. When the solitary metastasis was radically removed, 75.0% of the patients survived the first, 61.6% the second, 51.3% the third, 39.9% the fourth, 35.5% the fifth postoperative years. If the metastasis was multiple or the surgery was not radical, the 40.9% of patients survived the first, 16.0 % the second, 6.8% the third, 3.4% the fourth and none of the patients survived the fifth year.
Conclusions: According to our results we can conclude that in case of multiple or surgically unremovable metastases, minimal invasive surgery is much preferred. Moreover, in the case of solitary, low grade, operable metastases especially when they occur more than four years, we have to go ahead for a radical removal since in this way longer survival time could be expected (more than 10 years in certain cases). According to our best knowledge, the prognostic relevance of Fuhrman grade of bone metastases was not published before.

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Risk factors in renal cell carcinoma with venous extension

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Introduction and Objectives: Venous extension is a particularity of RCC and is registered in 5–25% of the cases, 1% having atrial extension. Identification of the risk factors, especially the influence of the adherence and the level of the thrombus in patient's survival provides valuable informations for the treatment and prognosis of these patients.
Material and Methods: Two cohorts of patients were studied: Cohort A – 108 patients with RCC and subdiaphragmatic venous extension (renal vein – RV and subdiaphragmatic inferior vena cava – IVC) operated in our center between January 2000 – December 2006. Cohort B – 26 patients with RCC and supradiaphragmatic venous extension operated in our clinic between 1994 and 2007. Statistic significance of the potential risc factors was evaluated with several tests: chi2, Yates correction of chi2, Fisher test, relative risk and confidence interval. The confidence interval was 0.05
Results: The main statistic significant survival risk factors were: sarcomatoid feature (p = 0,049), Fuhrman grade III and IV (p = 0,00003), tumoral stage T4 (significance only in cohort B – p = 0,033); lymph node metastases N (p = 0,0047), distant metastases M (p = 0,00005), tumoral stage IV (p = 0,00001). There were not validated as statistic significant risc factors: the sex of the patient (p = 0,668); left sided tumour (p = 0,420), tumour size >10 cm (p = 0,540), adherence of the thrombus (p = 0,214) and the level of the thrombus (subdiaphragmatic IVC vs RV p = 0,2834; supradiaphragmatic IVC vs RV – p = 0,2163; supradiaphragmatic IVC vs subdiaphragmatic IVC p = 0.36).