

34–60 Gy). Among total 22 patients, 9 of 17 (52.9%) patients in adjuvant radiotherapy group and 13 of 46 patients (28.3%) in surgery alone group received 2 to 6 cycles of adjuvant chemotherapy such as cisplatin with gemcitabine or methotrexate, cisplatin, vinblastine and doxorubicin.

Results: Median follow-up was 27.7 months (range 3.1–135.8 months). 20 of 63 patients experienced locoregional relapse, including 14 (22.2%) with regional nodes recurrence, 5 (7.9%) with tumour bed recurrence and 1 (1.6%) with both recurrence. Median locoregional free survival time was 20.1 months (range 2.1–135.8 months). Crude locoregional recurrence rate was 17.6% and 37% for patients who were treated with surgery followed by adjuvant radiotherapy and surgery alone, respectively ($p = 0.144$). 2-year actuarial locoregional recurrence free survival rate was 84.4% and 65% in adjuvant radiotherapy group and surgery alone group, respectively ($p = 0.561$). 2-year actuarial overall survival rate was 68.5% in adjuvant radiotherapy group versus 67% in surgery alone group ($p = 0.366$). Adjuvant radiotherapy also resulted in better locoregional relapse free survival in subgroup analyses for pT3/4 and positive resection margin cases. In pT3/4 subgroup, crude locoregional recurrence rate was 17.6% and 38.6% in adjuvant radiotherapy group and surgery alone group, respectively ($p = 0.141$). In positive resection margin subgroup, crude locoregional recurrence rate was 25% and 42.9% in adjuvant radiotherapy group and surgery alone group ($p = 0.387$). No grade 3–4 hematologic or other toxicity were observed during and after adjuvant radiotherapy with or without chemotherapy.

Conclusions: Despite short follow-up period for small numbers of patients in adjuvant radiotherapy group, results of current study show that adjuvant radiotherapy may have benefit for locoregional control of UTCC, especially in patients with pT3/4 or positive resection margin. Further prospective study will be required to confirm the role of adjuvant radiotherapy in patients with stage III/IV UTCC and/or positive resection margin.

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POSTER

Post-chemotherapy Retroperitoneal Lymph Node Dissection (RPLND) in Nonseminomatous Germ Cell Tumours (NSGCT) – Recurrence Pattern, Prognostic Factors and Outcome

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Background: RPLND following chemotherapy (CT) is a standard procedure for residual tumour in pts with advanced NSGCT. Many authors have emphasized the importance of achieving complete resection. Our analysis is focused on recurrence pattern, prognostic factors and outcome after radical (R_0) post-CT RPLND.

Methods: From 1987 to 2007, 837 CT-naïve pts with advanced NSGCT were treated in our department with first-line cisplatin- and etoposide-based CT. After completion of CT 249 pts underwent RPLND, 211 (85%) of them had R_0 RPLND. There was no surgery-related mortality. Twenty one (10%) pts had additional resections of residual tumour in other anatomical sites. All but 5 pts had normalized tumour markers at the time of surgery. Sixty four (30%), 98 (47%) and 49 (23%) pts belonged to good, intermediate and poor IGCCCG prognostic groups, respectively. Median size of residual RPLN was 4 (range, 1–17) cm.

Results: The pathological examination of RPLND specimens showed that 71 (34%) patients had teratoma, 102 (48%) – necrosis and 38 (18%) – viable GCTs. With median f-up of 66 (range, 4–216) months, 37 (18%) pts relapsed, which resulted in 5-years PFS and OS of 83% and 89%, respectively. Median time to relapse was 6 months. In 8 (22%) out of 37 pts, relapse occurred >2 years after first-line treatment. Sites of relapses were retroperitoneal, lungs, liver and other in 23 (62%), 9 (24%), 6 (16%) and 7 pts, respectively. The only factors associated with relapse were initial stage (5-y. PFS IIA/B 93%, IIC 84%, III 75%, p for trend 0.009) and RPLN pathology (5-y. PFS necrosis 86%, teratoma 87%, viable GCT 60%, $p = 0.003$).

Conclusion: Radical RPLND following chemotherapy produces high cure rate even in pts with residual viable germ cell tumour. The only prognostic factors for relapse were initial stage and pathology of resected residual mass.

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POSTER

Long-Term Results of Brachytherapy for Carcinoma of the Penis

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Background: Brachytherapy (BT) in Penile Cancer is an appealing organ sparing alternative to surgical treatment in early-stage penile cancer. This treatment preserves penile morphology and function organ without compromising disease control or survival.

The aim of this study is to analyze oncology results, Acute and Chronic Toxicity, and organ preservation rate of Penile Cancer treated with BT in a single institution (University Hospital 12 de Octubre).

Materials and Methods: Between 1983 and 2008, 21 patients with localized Penile Cancer were treated with interstitial Low Dose Rate Ir 192 BT in our institution. The median delivered dose was 65 Gy, and the reference isodose rates were 85%. Patient age ranged from 39 to 82 years (mean, 60 years). Tumour stage was according to AJCC 7th Ed. There were 19% Cis tumours, 52% T1, 29% T2. All of them were N0M0. Of the patients, 10% had undergone excision biopsy, whereas another 10% had received "other focal therapies". Mean tumour diameter was 20 mm. Survival curves were calculated according to the Kaplan–Meier method. Differences were evaluated by Long-Rank test. All the events were described after BT. Toxicity were according to CTCAE-V4.

Results: Median follow-up was 64 months (RQ1-Q3, 26–132). 10 patients had been followed for 10 years minimum. Acute $G \geq III$ skin toxicity was present in 57%. Acute $G \geq III$ Urinary tract Obstruction was 15%, requiring temporary suprapubic or urinary catheter. $G III$ Local infection rate was 5%. Chronic $G IV$ skin toxicity was present in 33%; solved in all patients with topical treatment. $G III$ Chronic Skin induration was seen in 5%. $G II$ and III Chronic Urinary tract obstruction was seen in 14% each. Patient's criteria esthetic results were "Good" at 52%, and "Bad" at 14%. Local recurrences were in 5%, regional 10% and distant failure 5%. The 10 year actuarial penile preservation was 76%. Actuarial 10 year survival rates were as follows: Overall survival (OS) 85%, Disease-Free-Survival (DFS) 76%, Specific-Survival Rate 5%.

Conclusion: BT is an effective treatment, showing similar results to surgery in $\leq T2N0M0$ Penile Cancer. There is a high organ preservation rate and an acceptable toxicity. It would be advisable to develop studies to evaluate Quality of Life in these patients in future.

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POSTER

Radical Radiotherapy of Bladder Cancer 64–74 Gy

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Background: In the treatment of locally advanced invasive bladder cancer could be used curative radiotherapy.

Materials and Methods: We treated 71 pts. with radical radiotherapy (RT) from 1/2003 to 4/2010 in doses 64–74 Gy (64 Gy – 19 pts., 66 Gy – 1 pt., 70 Gy – 50 pts., 74 Gy – 1 pt.). Median of age was 74 years. Ratio men:women was 2:1. TNM: T2 49%, T3 31%, T4 20%, NX 1%, N0 89%, N1 3%, N2 7%. Clinical stages: II – 47%, III – 39%, IV – 14%. Histology: 86% urothelial cancer. 99% pts. were contraindicated for the radical surgery. Chemotherapy (CHT) was administered in 7 pts. In 63 pts. CHT was contraindicated and 1 patient refused CHT. Patients were irradiated by 2 Gy to the doses 64–74 Gy on linacs by 3D RT in median time 51 days. RT was performed in 2–3 phases: PTV1 = pelvis (empty bladder) 44 Gy, PTV2 = empty bladder with rim 20 Gy, to the escalation 70 Gy PTV3 = tumour with rim (with full bladder) 6 Gy (or PTV2 = 26 Gy to the total 70 Gy). Posttreatment dispensary was performed by radiation oncologist and urologist. To evaluate the effect of RT was pivotal cystoscopy (CSK) and computer tomography (CT). CSK was the first 2–3 months after RT, then 3–4x a year. The first CT has been within 6 months, then 1–2x a year. For an objective evaluation it is important to make the first restaging at least 2–3 months after RT. Toxicity was evaluated according to RTOG.

Results: CR was achieved in 43 pts. (61%), PR in 14 pts. (20%). 10 pts. had PD after RT (14%). 4 pts. (6%) died before the first evaluation. Of the 43 pts. who achieved CR, 13 pts. subsequently failed (9 pts. locally, 4 pts. by generalization). A total of 39 pts. died till April 2011, 28 of the bladder cancer, 11 from other causes. Median follow-up is 25 months, 2 years OS is 64%. The median DFS after RT (ie, without subsequent surgery) is 14 months, 2 years DFS is 47%. Median follow-up after not-achieving CR or after failing is 11 months. At the last inspection was in CR 36 pts. (51%).