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 UTTCC, 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 UTTCC and/or positive resection margin.

7125 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.

7126 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 $\geqslant$ III skin toxicity was present in 57%. Acute G $\geqslant$ 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 topic 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 $\leqslant$ 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.

7127 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 1−2$\times$ 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%).

Most patients had acceptable gastrointestinal and urological toxicity of the treatment (Grade 0-II >83% pts.).
Conclusions: Curative radiotherapy of bladder cancer to the dose 64−74 Gy is an effective treatment. For a large proportion of patients, it leads to long-term DFS with an acceptable toxicity. An important advantage is to preserve the bladder. This treatment is wrongly neglected and for elderly patients may mean the only curative treatment option.

7128 POSTER

Superficial Bladder Cancer, the Problem of T1 G3 Tumours − an Egyptian Experience

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Background: Most genitourinary oncologists would agree that T1 G3 superficial bladder cancers are a watershed for therapeutic interventions, but the ideal treatment remains controversial. Our study aimed at reviewing a random sample of the cases with superficial bladder cancer that presented to the national cancer institute − Cairo university (a leading Egyptian centre) within the last five years in a retrospective way. Our aim was to try to establish a standard treatment for this controversial group.
Materials and Methods: One hundred patients with superficial bladder cancer were included in the study. They were randomly selected out of 800 patients with different pathologies included in the definition of "superficial bladder cancer" from the pathology department at our institute from 2005 to 2009. The data for the selected patients was collected in a data sheet designed for the study. The condition at last follow-up was obtained from frank statements in the patients' records as well as by analysis of the preceding disease history.
The returned data was tabulated in a master table, and statistical analysis was done whenever appropriate to illustrate correlation or significance.
Results: Out of 22 cases primarily diagnosed as T1 G3 tumours on first cystoscopy, 19 showed recurrence within the first 6 months, 100% recurred as T1 G3 with multicentricity.
The T1 G3 group never changed the grade or the stage on subsequent recurrences, whereas other grades and stages progressed to T1 or G3 throughout their course.
13 progressed to invasive type within a time interval ranging between 2 months and 3 years. 11 were explored for possibly radical cystectomy following diagnosis of invasion, only 6 of them were operable. The rest were locally advanced or metastatic. The urinary diversion following cystectomy in the 6 operated cases included 4 ileal conduits, one rectal bladder and one uretero-cutaneous. In all cases, it was not possible to try for a continent orthotopic bladder in those patients.
The median time to first recurrence (tumour-free period) was 6 months in G3 tumours, while 12 months in other grades. The invasion-free survival at 12 months was 84% with T1 tumours, while 92–100% in other T stages (Ta and Tis). This meant that at 12 months follow-up, the highest percentage of invasive tumours were originally T1 G3 type.
Conclusions: The recurrence of T1 G3 tumours always occurred within the first 12 months of the follow-up period. They progressed to invasive cancer within the following 12 months. Whenever they progressed, they presented with advanced stage of the disease and sometimes metastasized. Subsequent mortality followed within 12−24 months interval. T1 G3 tumours showed a high rate of progression and sometimes they invaded very rapidly, leading to unacceptable mortality from what is originally described as "superficial" tumours; thus justifying the adoption of a new policy for early radical cystectomy in T1 G3 tumours.

7129 POSTER

Adjuvant Chemotherapy for High-risk Patients With Urothelial Carcinoma

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Background: In Europe in 2008, there were an estimated 139,500 new cases of urothelial cancer (UC) and 51,300 related deaths. Surgical treatment is the gold standard treatment for muscle-invasive disease. However, disease recurrence is observed in 30% to 56% of patients undergoing surgery (S), most often the result of occult metastatic disease. Nowadays there is a lack of data in the current literature to provide strong recommendations of adjuvant chemotherapy (AC) for patients with high-risk UC.
Material and Methods: We retrospectively analysis 59 pts with diagnosis of UC of the bladder(B) or upper urinary tract (UUT) treated with S diagnosed between November 2004 and June 2010. Pts were divided in two groups: S only (29 pts-49%) and S+AC (30 pts-51%). Adjuvant chemotherapy schedule (ACS) were cisplatin-based 56% and carboplatin-based 43%. The tumour stage and grade were recorded according to the 2002 TNM and WHO system, respectively. PFS, OS and predictors of outcomes were analyzed using Kaplan–Meier method and Cox regression analysis.
Results: Median age was 69 years, pT3−4: 91%, pN+: 46.9%, stage (St) III/IV: 48.3%/51.7%, primary site (B 61%, UTT 39%), surgical margen +: 6.8%, serum creatinine $\geqslant$1.6 mg/dl: 25%, median nodes resected: 11 (0−21). There were no differences in characteristics patients between both groups (gender, pT, pN, St), except ECOG PS 0 and 1(S 65% vs S+AC 13%, S 34% vs S+AC 86%; $p < 0.001$). At a median follow-up time of 20.6 mo, 43.1% have relapsed (S 51.7%, S+AC 33%; $p = 0.023$) and 40.6% have died (S 48%, S+AC 33%; $p = 0.04$). ACS were similar in terms of number of cycles delivered, PFS and OS (P = NS). On multivariable Cox regression analysis St was independent predictor factor of PFS (HR 0.28, 95% CI 0.08–0.98; $p = 0.047$) and OS (HR 0.31, 95% CI 0.11–0.87; $p = 0.026$) and not receiving AC was independent predictor factor of PFS (HR 4.27, 95% CI 1.78–10.27; $p = 0.001$) and OS (HR 3.27, 95% CI 1.57–8.98; $p = 0.003$). Main G3−4 toxicities were neutropenia 54%, febrile neutropenia 10.8%, thrombocytopenia 16.2% and anemia 18.9%. There was one toxic death (sepsis).
Conclusion: AC is associated with a significant improvement in relapsed and survival for pts high-risk patients with UC treated in an off-protocol clinical setting.

7130 POSTER

Does Chemotherapy for Testicular Cancer Warrant Prophylactic G-CSF?

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Introduction: Chemotherapy for metastatic germ-cell tumours (GCT) is highly curative. Myelotoxicity is a main side effect of standard regimens such as bleomycin, etoposide, cisplatin (BEP) or etoposide, cisplatin (EP). Usage of prophylactic G-CSF varies amongst centers and countries.
Hypothesis: BEP and EP can be safely administered without prophylactic use of G-CSF.
Methods: The BCCA registry was analyzed for all patients who were treated with either BEP or EP for metastatic GCT between 2001 and 2010. Data on neutropenic fever episodes, usage of G-CSF, frequency of dose delays and dose reductions were recorded.
Results: A total of 281 patients were identified. Results are currently available for 50/281 patients. 29% of patients were treated for FNE while receiving chemotherapy, all of whom completed recommended chemotherapy without subsequent G-CSF. 1 patient received a dose reduction in chemotherapy due to bone marrow toxicity. No other dose reductions or dose delays occurred. Nearly all of the patients who had FNE had good prognosis by IGCCCG staging with one intermediate and no poor prognosis. 9% were treated prophylactically with prophylactic G-CSF, none of whom experienced FNE.
Discussion: Although the incidence of FNE is relatively high, the associated morbidity was low, Neutropenic fever episodes were generally short, uncomplicated and did not result in dose delays or reductions. Administration of BEP and EP appears safe even without prophylactic use of GCS-F. Results on all 281 patients will be available.