PO-0760
3D Radiotherapy with concurrent weekly Gemcitabine and Cisplatin for bladder carcinoma
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Purpose or Objective: We conducted a phase I trial of Gemcitabine (GEM) with concomitant 3D-Conformal Radiotherapy (3D-CRT) and Cisplatin (DDP) in patients with muscle-invasive bladder cancer who were ineligible for surgery or refused organ loss.

Material and Methods: 28 patients with transitional cell carcinoma, cT2(n=14), cT3(n=8), T4a(n=6), cNO-1, M0, median age 70.5 years were included after maximal transurethral resection. 3D-CRT was administered with a 18MV Linac, 1.8Gy/5d, 5d/week up to 64.80Gy. The GEM dose immediately before the level at which the DLT was observed was defined as the Maximum Tolerated Dose (MTD). In 6 patients accrued to GEM dose 40mg/m2/week no grade 3 toxicities were seen. From 6 patients given 80mg/m2/week of GEM, 2 had episodes of grade 3 bladders toxicities and 2 presented with grade 3 hematologic sequelae. From 6 patients accrued to GEM dose 120mg/m2/week, 4 had episodes of grade 3 neutropenia and/or thrombocytopenia and 3 showed grade 3 fatigue/malaise. In 4 patients treatment was interrupted for more than 1 week. The 2-year locoregional failure rate was 28% (8/28). 12 of 28 (42%) patients are alive with no evidence of disease progression, 8 patients developed M1 disease and 5 died from this.

Conclusion: GEM given synchronously with 3D-CRT is well tolerated as a bladder preservation schema. The MTD was defined at 80mg/m2/week combined to CDDP and merits evaluation in phase II/III trials.

Poster: Clinical track: Skin cancer / malignant melanoma

PO-0761
Radiation therapy for angiosarcoma of the scalp: total scalp irradiation with X-rays and electrons
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Purpose or Objective: Wide surgical excision is the standard treatment for angiosarcoma of the scalp, but it is often difficult to completely excise because of the invasive nature and typical multifocal spread of the tumor. Furthermore, many patients are medically inoperable because of old age or coexisting disease. Therefore, we investigated the outcome of radiation therapy with total scalp irradiation for angiosarcoma of the scalp.

Material and Methods: Seventeen patients with angiosarcoma of the scalp underwent radiation therapy with total scalp irradiation with curative intent. Their median age at the time of irradiation was 77 (range, 57–89) years. Four of the 17 patients had tumor invasion into the deep organs, including the skull in three and the temporal muscle in one. Four patients had cervical lymph node metastases, but none had distant metastases. A median initial dose of 50 Gy in 25 fractions was delivered to the entire scalp. Two pairs of lateral X-ray and electron fields were used for total scalp irradiation: 4-6 MV X-rays were delivered through bilaterally opposed ports to the central scalp from the frontal eminence to the suboccipital region, to a depth of 10 mm inside the skull, and 5-9 MeV electrons were delivered through single ports to the bilateral temporal scalp. Subsequently, local radiation boost to the tumor sites achieved a median total dose of 70 Gy in 35 fractions.

Results: All patients were evaluated for toxicity which was evaluated according to the Common Toxicity Criteria and the RTOG/EORTC Score. The DLTs (Dose Limiting Toxicities) were defined as hematologic grade \( >3 \) or non-hematologic grade 3 events, as Abdominal pain/Diarrhea (Proctitis), Dysuria/Urinary frequency (Cystitis), Fatigue/Asthenia, not resolving tro grade 1/2 within 2 days or necessitating the interruption of RT for >1 week, in more than 3 of 6 patients in each cohort. The GEM dose immediately before the level at which the DLT was observed was defined as the Maximum Tolerated Dose (MTD). In 6 patients accrued to GEM dose 40mg/m2/week no grade 3 toxicities were seen. From 6 patients given 80mg/m2/week of GEM, 2 had episodes of grade 3 bladders toxicities and 2 presented with grade 3 hematologic sequelae. From 6 patients accrued to GEM dose 120mg/m2/week, 4 had episodes of grade 3 neutropenia and/or thrombocytopenia and 3 showed grade 3 fatigue/malaise. In 4 patients treatment was interrupted for more than 1 week. The 2-year locoregional failure rate was 28% (8/28). 12 of 28 (42%) patients are alive with no evidence of disease progression, 8 patients developed M1 disease and 5 died from this.

Conclusion: GEM given synchronously with 3D-CRT is well tolerated as a bladder preservation schema. The MTD was defined at 80mg/m2/week combined to CDDP and merits evaluation in phase II/III trials.