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Purpose or Objective: To evaluate the efficacy and safety of stereotactic radiation therapy (SRT) in the treatment of patients with recurrent pancreatic adnocarcinoma at the stump or abdominal lymph node after surgery.

Material and Methods: Between October 1 2011 and May1 2015, patients with recurrent pancreatic adnocarcinoma at the stump or abdominal lymph nodes after surgery were enrolled and treated with SRT at our hospital. The primary end-point was overall survival after SRT (OS). Secondary end-points were: local control rates (LC), time to symptom alleviation, and toxicity using the Common Terminology Criteria for Adverse Events (CTCAE v4.0).

Results: Twenty-four patients with 24 lesions (17 abdominal lymph nodes and 7 stumps) were treated with SRT. Among these patients, five patients were presented with abdominal lymph node and synchronous metastases in liver and lung. For the entire cohort, the median OS from diagnosis and SRT were 28.93 months and 12.20 months, respectively. The 6-month, 12-month, and 24-month actuarial LC rates were 95.2 %, 83.8% and 62.1% respectively. Symptom alleviation was observed in 11 of 14 patients reported symptoms (78.6%) with a median of 8 days (range, 1-14 days) after SRT. Nine patients (37.5%) experienced CTCAE v4.0 Grade 1 to 2 acute toxicities; one patient experienced grade 3 acute toxicity due to thrombocytopenia.

Conclusion: SRT is a safe and efficacious treatment modality for patients with recurrent pancreatic adnocarcinoma at the stump or abdominal lymph nodes after surgery. Further studies are needed before SRT can be recommended routinely.

EP-1258

Concurrent high-dose (60-70 Gy) radiation and chemotherapy for esophageal cancer: long-term results

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Purpose or Objective: Based on the results of the intergroup-0123/RTOG 94-05 trial that demonstrated no benefit of dose escalation over 50.4 Gy in definitive chemoradiotherapy (CRT) for esophageal carcinoma, 50.4 Gy appears to be accepted as a standard dose. Radiobiologically, however, higher radiation doses, if safely delivered, could lead to better local control. We have used combination of standard FP (5-fluorouracil [5-FU] and cisplatin) chemotherapy and radiation with dose ≥60 Gy in the treatment of non-metastatic esophageal cancer. We report clinical outcome of the treatment protocol.

Material and Methods: Between 2002 and 2014, 86 patients with stage I-III or IV (M1 LYM) esophageal cancer were treated with CRT. Median age of the patients was 68 years (range: 46 to 84); 76 were men and 10 were women. Histology was squamous cell carcinoma in 98%. Patients were divided into 4 groups according to the stage and operability; Group 1: stage I patients (n = 10); Group 2: stage II-III operable patients (n = 20); Group 3: stage II-III (non-T4) inoperable patients (n = 21); and Group 4: stage III-IV (T4/M1 LYM) patients (n = 35). Chemotherapy protocols were either cisplatin (70 mg/m2) plus 5-FU (700 mg/m2 x 4 days) administered every 4 weeks or low-dose daily cisplatin (4 mg/m2) and 5-FU (200 mg/m2). Radiation was given by 10-MV X rays with a daily fraction of 1.8-2 Gy. Treatment volume included primary tumor plus regional lymph nodes. A total dose between 60 and 70 Gy was chosen depending on the treatment volume. Median radiation dose was 64 Gy (range: 50-70 Gy; 5 patients could not complete planned treatment). Failure was confirmed by pathology or findings of progressive disease on serial endoscopy and/or imaging studies. Overall survival (OS) and locoregional control (LC) rates were calculated by the Kaplan-Meier method. Toxicities were evaluated by the Common Terminology Criteria for Adverse Events version 4.0.

Results: For all 86 patients, the 3-year LC and OS rates were 65% and 29%, respectively; they were 100% and 100%, respectively, in Group 1, and 72% and 42%, respectively, in Group 2. The 2-year LC and OS were 53% and 14%, respectively, in Group 3, and 69% and 25%, respectively, in Group 4. Overall response rate was 78% (complete response in 31 and partial response in 36). Grade 3 or higher acute toxicities, mainly hematological, were observed in 37% of the patients and 10% experienced grade 3 or higher late toxicities.

Conclusion: CRT with FP and 60-70 Gy of radiation appears to be tolerable for patients with esophageal cancer. Although outcome of this treatment in inoperable patients is not satisfactory, the 3-year LC of 100% for stage I patients and 76% for stage II-III operable patients appear promising. Further investigation is warranted to clarify the optimal radiation dose in CRT for esophageal cancer.

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Clinical significance of lymphocyte count before chemoradiotherapy in resected pancreatic cancer

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Purpose or Objective: The objective of this study was to investigate the prognostic value of circulating lymphocyte level at the beginning of postoperative chemoradiotherapy (CRT) in pancreatic adenocarcinoma.

Material and Methods: From 2007 to 2014, 41 patients treated with postoperative CRT were analyzed. The median dose of radiotherapy was 50.4 Gy (range, 45 – 59.4) and chemotherapy was administered after surgery. Absolute lymphocyte counts (ALC) was obtained from complete blood count tests performed prior to CRT. We analyzed blood lymphocyte count as well as clinical parameters to identify prognostic factor

Results: With a median follow-up of 16.9 months, 32 patients had cancer recurrence and 28 died from the disease. The median overall survival (OS) and disease free survival (DFS) were 19.7 months and 9.8 months. The median OS of high postoperative ALC (>2.074 $\times 10^3$/ μL) group was significantly longer than that of the lower ALC group (32.0 months versus 17.0 months, p = 0.007). In multivariate analysis, high postoperative ALC was a good prognostic factor for OS. (Hazard Ratio = 0.341, CI, 0.149 – 0.778, p = 0.011). High ALC at the beginning of postoperative CRT was also a prognostic factor for DFS in multivariate analysis (Hazard Ratio = 0.452, CI, 0.215 – 0.946, p = 0.035).