respectively. At the 26 weeks, there were significant differences between the groups in NI ($p = 0.027$), TBW ($p = 0.015$), and all BIA-derived LBMs. Compared to base-line, there were significant changes in weight ($p = 0.006$), BMI ($p = 0.005$), FM ($p = 0.007$), %Body Fat (%BF) ($p = 0.016$), TBK/Ht ($p = 0.021$), LBM_{TBK} ($p = 0.023$), $LBM_{VanLoan}$ ($p = 0.034$), and LBM_{Segal} ($p = 0.038$) at the 14 weeks as well as the FM ($p = 0.012$), %BF ($p = 0.003$), and BMI ($p = 0.027$) at the 26 weeks time-point.
Summary and Conclusions: Results suggest a deviation between the two groups in their TBN, LBM and TBW content observable in a long term setting and FM in the relatively shorter-term. Also, although the UCM has lower body composition values than the CM, both groups seem to begin to gradually "equalise" around the 14 weeks time-point. This may suggest that regardless of whether a curative or a palliative surgery is performed on patients with PC, at least by around 14 weeks, their body composition statuses can become relatively similar.

6586 POSTER

Patterns of radiotherapy practice for pancreatic cancer in Japan: results of the Japanese radiation oncology study group (JROSG) survey

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Background: To determine the patterns of radiotherapy practice for pancreatic cancer in Japan.
Materials and Methods: A questionnaire-based national survey of radiotherapy for pancreatic cancer treated between 2000 and 2006 was conducted by the Japanese Radiation Oncology Study Group (JROSG). Detailed information on 870 patients from 34 radiation oncology institutions was accumulated.
Results: Median age of all patients was 64 years (range, 36−88), and 80.2% of patients had good performance status. More than 85% of patients had clinical T3−4 disease, and 68.9% of patients had unresectable disease at diagnosis. Concerning radiotherapy, 49.8% of patients were treated with radical external beam radiotherapy (EBRT) (median dose: 50.4 Gy), 44.4% of patients were treated with intraoperative radiotherapy (IORT) (median dose: 25 Gy) ±EBRT (median dose: 45 Gy), and 5.9% of patients were treated with postoperative radiotherapy (median dose: 50 Gy). Treatment filed was primary tumor (bed) only in 55.6% of patients. Computed tomography-based treatment planning and conformal radiotherapy were used in 93.1% and 83.1% of patients treated with EBRT, respectively. Chemotherapy was used for 691 (79.4%) patients (before radiotherapy: 66 patients; during radiotherapy: 531 patients; after radiotherapy: 364 patients), and gemicitabine was the most frequently used drug, followed by 5-fluorouracil.
Conclusion: This study describes the general patterns of radiotherapy practice for pancreatic cancer in Japan. Most patients had advanced unresectable diseases, and not only radical EBRT but also IORT±EBRT were frequently employed. Concerning chemotherapy, gemicitabine was commonly used in conjunction with radiotherapy during the survey period.

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The comparison of the conformal radiotherapy (CFRT – 2, 3 and 4 fields) and intensity modulated radiotherapy (IMRT) in adjuvant radiochemotherapy for patients with pancreas cancer

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Purpose: To compare CFRT – 2, 3, 4 fields (F) and IMRT in planning of adjuvant radiochemotherapy in patients with pancreas cancer after Whipple operation.
Materials and Methods: A treatment planning study was performed to compare CFRT (2F, 3F, 4F) and IMRT for fifteen patients with pancreas cancer. For each patient from this group four treatment plans were performed: 3 for CFRT and 1 – IMRT. The CFRT plans consisted of two opposite fields (2F), two opposite fields and one oblique fields (3F), two lateral and two oblique fields (4F) and the IMRT plan.
The treatment plans were performed to achieve the minimum dose for PTV no lower than 95% of total dose. Treatment plans were compared using dose-volume histograms and plots of median doses for left and right Kidney (K) V_{20}, Liver (L) V_{30}, D max for Spinal Cord (SC) and D max for Intestines (IN). For the evaluation of statistical significance the nonparametric Wilcoxon's test was performed.
Results:
– Minimum dose in PTV (PTV min) for 2F plan was: 42.70 Gy, 3F – 42.70 Gy, 4F – 43.19 Gy and in IMRT – 43.23 Gy ($p = 0.006$).
– D max for SC was acceptable in all plans (3F – 40.4 Gy, 4F – 34 Gy, IMRT – 44 Gy) except in 2F – 46.5 Gy (2F vs IMRT $p = 0.00065$, 3F vs IMRT $p = 0.95$, 4F vs IMRT $p = 0.005$).
– The median volume for each kidneys V_{20} was comparable for all conformal plans. For left kidney 44.7%, 41%, 40% for 2F, 3F and 4F respectively and 11.3%, 10.7%, 9.2% for right kidney. The V_{20} for left kidney was 18% and 6% for right kidney using the IMRT plans ($p < 0.002$).
– Liver V_{30} was comparable for each of the performed plans: 2F – 8.3%, 3F – 8%, 4F – 7% and IMRT – 7%. (2F vs IMRT $p = 0.015$, 3F vs IMRT $p = 0.04$, 4F vs IMRT $p = 0.36$)
– D max for intestines was acceptable in all plans 2F – 48.5 Gy, 3F – 47.0 Gy, 4F – 46.7 Gy, IMRT – 48.0 Gy ($p = 0.001$).
Conclusions:
1. All plans fulfill ICRU 50 recommendation for PTV min.
2. DVH demonstrated better protection of the kidneys in IMRT as compared to CFRT.
3. Similar and acceptable protection of liver and intestines in all performed techniques.

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A phase II trial of cationic liposomal paclitaxel in combination with gemcitabine in patients with advanced pancreatic cancer

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Background: EndoTAG™-1 is a novel cationic liposomal formulation of paclitaxel being developed for the treatment of solid malignancies. It acts by targeting activated negatively charged endothelial cells of tumor blood vessels. Its safety and efficacy in combination with gemcitabine has been evaluated in a randomized, controlled phase II trial in patients with advanced pancreatic cancer (PC).
Methods: Patients with advanced PC were randomized to 1st line treatment with weekly gemcitabine (GEM: 1000 mg/m^2) and twice weekly infusions of EndoTAG™-1 (E) at 3 different dose levels (E_{low}: 11 mg/m^2, E_{med}: 22 mg/m^2, E_{high}: 44 mg/m^2) or GEM monotherapy. Patients were treated for 7 weeks and followed up for overall survival (OS) for at least 1 year. After finishing study treatment, any anti-tumor therapy was allowed. A subgroup of patients who had at least stable disease according to RECIST had the option to receive repeated cycles of combination therapy until disease progression.
Results: Of the 200 patients enrolled, 80% had metastatic and 20% had locally advanced disease. Median OS was substantially higher in the GEM+E_{med} and GEM+ E_{high} groups than in the GEM monotherapy group with 12-month survival rates of 36% (GEM+E_{med}) and 32% (GEM+E_{high}) compared to 17% in the GEM group. Adjusted hazard ratios for OS were 0.72 (95% CI 0.45−1.13) for the GEM+E_{med} and 0.67 (0.42−1.07) for the GEM+ E_{high} group. Adding E to GEM was also associated with prolonged progression-free survival and a higher rate of disease stabilization after 7 weeks. Treatment with EndoTAG™-1 and gemcitabine was generally well tolerated. Adverse events related to combination therapy with E were predominantly chills and pyrexia of mild or moderate intensity.
Conclusion: This phase II trial indicates a considerable survival benefit for patients with advanced PC receiving EndoTAG™-1 in combination with gemcitabine and a favourable safety profile warranting further development of EndoTAG™-1 in this indication.