Oral Presentations (Mon, 26 Sep, 09:00–11:05)
Cancer in the Older Patient

4000 ORAL

A Retrospective Comparison of Treatment Approaches in Two Groups of Age for the Elderly With Rectal Cancer

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Background: Preoperative chemoradiotherapy is considered as the standard approach for T3−4 rectal cancer but studies have shown that elderly patients could be denied optimal treatment because of age. This study analyses the current approaches of rectal cancer treatment in elderly patients.
Materials and Methods: We retrospectively studied all patients older than 65 years who received at least radiotherapy for rectal cancer from 2000 to 2008 in our institution. Final analysis included 240 patients, and we compared 2 groups management: patients aged 65 to 75 years (Group A, n = 127) and older than 75 years (Group B, n = 113). The sex ratio was 2 for the group A versus 1.6 for the group B (p = 0.42). The distribution of Charlson comorbidity index was similar in the 2 groups with 16% of patients with a score over 2. For ECOG Performance Status (PS), 66% of patients are PS 0 compared to 40% in group B (p < 0.0001). In terms of tumoral stage there was no significant difference of distribution between the 2 groups: lymph node involvement was diagnosed in half of patients, and 17% of patients had metastatic disease in both groups.
Results: Median age was 74.3 years (range 65–90.6), 70.3 years in group A and 79.8 years in group B. Overall, treatment was discussed in cancer multidisciplinary team meeting in 87% of cases, in 55% and 73% of groups A and B patients, respectively (p = 0.00085). Treatment proposals were in accordance with French recommendations in 89% of cases for group A and 72% for group B (p = 0.002). At time of treatment, schedule adaptation occurred for, respectively 46% and 66% of patients (p = 0.0027). Patients in group B received less concurrent chemotherapy than patients in group A, 35% and 30%, respectively (p = 0.54), more hypofractioned radiotherapy 41% and 54%, respectively (p = 0.064), less surgery, 92% and 80%, respectively (p = 0.014) and less adjuvant chemotherapy, 34% and 10% (p < 0.01), respectively. Finally, 82% of patients in group A and 63% in group B received a treatment in accordance with guidelines (p = 0.0013) and in the logistic regression model, for non metastatic patients, the predictive factor for conformal management was age under 75 years (HR = 0.323, 95% CI: 0.152–0.684) irrespective of performance status, comorbidity, or disease stage.
Conclusions: In this series, treatment proposals and performed treatment schedules are statistically different according age. The most elder patients appear to be receiving less conformal treatment. Prospective trials and the widespread use of comprehensive geriatric assessment (CGA) for this population could help to remove barriers to standard treatment for some and develop adaptative approaches for others.

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Standard Thoracic Radiotherapy With or Without Concurrent Daily Low-dose Carboplatin in Elderly Patients With Locally Advanced Non-small Cell Lung Cancer − a Phase III Trial of the Japan Clinical Oncology Group (JCOG0301)

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Background: The standard treatment for locally advanced non-small cell lung cancer (NSCLC) has been considered to be chemo-radiotherapy (CRT). However, the use of this combined therapy for elderly patients (pts) is still unclear. This trial was set up to evaluate whether thoracic radiotherapy (RT) with daily low-dose carboplatin (CBDCA) would result in longer survival in elderly pts with unresectable stage III NSCLC than RT alone (JCOG0301; ClinicalTrials.gov number, NCT00132665).
Materials and Methods: We selected pts aged more than 70 years who could not receive cisplatin-based combination chemotherapy and had unresectable stage III NSCLC. Pts were treated with RT alone (arm A) involving irradiation with 60 Gy or with CRT (arm B) involving equivalent RT and concurrent CBDCA 30 mg/m^2 per fraction up to the first 20 fractions. The primary endpoint was overall survival (OS). The trial was designed to have an 80% power to detect a difference in median survival time (MST) from 10 months in arm A and 15 months in arm B, with a one-sided alpha level 0.05. The planned sample size was 200 pts. At the second planned interim analysis, observed/planned number of events was 129/173 and the corresponding alpha level was 0.023.
Results: We enrolled 200 pts from September 2003 to May 2010. The second-planned interim analysis was performed 10 months after the 200th pt was enrolled (March 2011). In accordance with the pre-specified stopping rule, the JCOG Data and Safety Monitoring Committee recommended discontinuation of this trial because of the difference in OS favoring arm B; therefore, the trial was closed early. Pt characteristics for arms A (n = 100) and B (n = 100) were as follows: median age, 77 (71−93) and 77 (71−89); stage IIIA/IIIB (n), 54/46 and 51/49; PS 0/1/2 (n), 41/55/4 and 41/56/3; male pts (n); 84 and 80; and histology (n) squamous cell carcinoma/adenocarcinoma/other, 55/41/4 and 42/48/10; respectively. MST for arms A and B was 16.9 and 22.4 months; OS was significantly (HR = 0.68, 95.4% CI = 0.47- 0.98, one-sided $p = 0.0179$ by stratified log-rank test) in favor of arm B, with multiplicity adjustment. The median progression-free survival time was 6.8 and 8.9 months. Objective response rate was 44.9% and 51.5%. Major grade 3/4 toxicities for arms A and B were neutropenia (0%/58.5%), febrile neutropenia (0%/2.1%), thrombocytopenia (2.0%/29.8%), infection (4.1%/14.9%), and pneumonitis (3.1%/0%). Late lung toxicity (grade 3/4) was seen in 6.4% and 6.5% of pts and adverse events resulting in death were reported in 4 and 3 pts of arms A and B, respectively.
Conclusions: This is a first trial which demonstrated that concurrent daily low-dose CBDCA and thoracic RT for elderly pts with locally advanced NSCLC provides clinically significant benefits and this combined modality could be considered to be the standard treatment for this population.
This study was supported in part by the Ministry of Health, Labour and Welfare of Japan.

4002 ORAL

Stage I Non Small Cell Lung Cancer (NSCLC) in Patients Aged >80 Years − Clinical Outcomes After Stereotactic Radiotherapy Using Real Time Tumour Tracking

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Background: The number of elderly patients (pts) with stage I NSCLC is increasing. Pts aged 80 years and older often have significant comorbidity and only selected pts are surgical candidates. Treatment is therefore often primarily aimed at avoiding side effects and preserving quality of life, while curation is of secondary concern. In recent years Stereotactic Body Radiation Therapy (SBRT) has emerged as a curative treatment alternative in patients with sage I NSCLC who are medically inoperable. However, the tolerance and outcomes of SBRT in pts aged $\geqslant$ 80 years with high comorbidity rates is less well characterized. In this work we evaluated the local tumour control rate, and treatment related toxicity after SBRT using real-time tumour tracking technique in octogenarians pts with stage I NSCLC.
Methods and Materials: 25 pts aged $\geqslant$80 years (range 80−85) with stage I lung tumour were treated with SBRT. All pts were considered medically inoperable. The median Charlson score was 3 (range 1−7). Of the 25 pts. 14 had T1 tumour, 10 T2a and 1 T1b. The median tumour diameter was 2.8 cm (range 1.2−5.5). All pts were treated using a CyberKinife System with Synchrony® Respiratory Tracking System (SRTS) device. Five pts were treated with a single fraction (f) of 26 Gy and 16 with 3 f of 17 Gy. A risk adaptive schedule of 32−48 Gy in 3−4 f was used for central tumours (4 pts). The dose was prescribed to the isodose line of 80%. Median FU was 15 months (range 3−49).
Results: Of the 25 pts 5 showed evidence of local recurrence. One local recurrence occurred in pts treated with biologically effective dose (BED) >100 Gy10 and 4 in pts treated with BED $\leqslant$100 Gy10. The actuarial local progression free probability (LPFP) at 2 years was 63.6%. The LPFS at 2 years for pts treated with BED $\leqslant$100 Gy10 vs >100 Gy10 was 42.8% vs 90.9% respectively. Overall and cancer specific survival at 2 years were 66.5% and 75% respectively. Treatment was well tolerated. Early

side effects were: fatigue in 7 pts (28%) and local chest wall pain in 2 pts (8%). No clinically symptomatic pneumonitis was observed. One pts (4%) developed rib fracture. Subjective symptoms of increased dyspnoea during follow up occurred in 2 pts (8%). Asymptomatic radiation induced lung fibrosis was detected in 9 pts (36%).
Conclusion: SBRT with SRTS in octogenarians appears to be a safe and minimally invasive modality for treating pts with medically inoperable stage I NSCLC. Despite the significant presence of medical comorbidity (Charlson score $\geqslant$4 in 40% of pts), curative SBRT, with doses of >100 Gy BED, achieved high local control with minimal toxicity. Longer FU will be required to fully establish toxicity as well as probability of local failure.

4003 ORAL

Age is Nothing but a Number − Management of Breast Cancer in the Elderly

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Background: Breast cancer is becoming more prevalent in an older cohort of patients. Some clinicians can occasionally be guilty of basing treatment decisions on biological age in conjunction with pre-morbid states and predicted life expectancy, such that surgery and, even chemotherapy or radiotherapy are not offered as first line treatment options in the elderly. The aim of our study was to assess treatment options provided for patients over the age of 75 years with breast cancer at a single institution.
Materials and Methods: A retrospective review of a prospectively maintained database of patients diagnosed with breast cancer aged over 75 years at time of diagnosis at a single institution over a 3-year period (December 2003- November 2006) was undertaken. Only symptomatic and invasive cancers were included in the study.
Results: 57 patients with invasive breast cancer were reviewed. The median follow-up period was 3 years. 28 patients underwent surgery as their primary treatment and 29 underwent primary hormonal therapy. 89.6% of this group received Aromatase Inhibitors as their primary hormone treatment. The median age in the surgical group of patients was 80.3 years (Range 75−85) compared to 85.2 years (Range 77−96) in the primary hormone group. 96.4% of the patients had Oestrogen positive (ER) tumours. There was no difference in American Society of Anaesthesiology (ASA) status between the two groups. 72.4% of patients who underwent surgery were alive at 3 years, compared to only 28.5% of patients in the primary hormone group. The lymph node involvement was fairly evenly matched in both groups; however 28% of the primary hormone group had distant metastatic disease at the time of diagnosis compared to 0% in the surgical group.
Conclusions: Our results show that if an elderly patient has symptomatic breast cancer but does not have distant metastases, and is fit to undergo an anaesthetic, then primary surgery should be recommended by the local multi-disciplinary team as the treatment of choice. Primary hormone treatment in the elderly should be reserved for those patients with metastatic disease or if the patient chooses this option. The chronological age of the patient should not be a primary factor in the decision making process.

4004 ORAL

Evaluating the Perioperative Risk of Gastric Cancer Patients Over 80 Years Old Retrospective Analysis Using the POSSUM and E-PASS Scoring System

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Background: It is well known that the surgical risk for an elderly person is much greater than that for younger patients, and that in such cases, the surgical risk should be evaluated preoperatively. Although many studies of perioperative risk analysis using predictive risk scores for elderly patient have been reported, there are still very few studies evaluating risk analysis in an extremely elderly patient group such as those over 80 years old (y.o.). In this study, we applied POSSUM and E-PASS, which are known to be useful predictive perioperative risk score systems for assessing perioperative risk, and attempted to evaluate perioperative risk and patient outcomes.
Material and Methods: Between May 2006 and August 2010, 898 patients underwent gastric cancer surgery at our institute and 63 of these patients were over 80 y.o. For this evaluation, we applied the Physiologic and Operative Severity Score for the enUmeration of Mortality and morbidity (POSSUM) and Estimation of Physiologic Ability and Surgical Stress (E-PASS), which was developed for evaluating perioperative risk in Japan. Moreover, the duration of hospital stay was also evaluated.
Results: As patient background, there were 41 males, 22 females, aged 82.5$\pm$2.4 year old. Twenty-one patients had perioperative complications, such as aspiration pneumonia, wound infection, leakage, cerebral infarction, delirium and others. In POSSUM, there were significant differences in Hb (complication group = 10.7$\pm$2.6 vs. non complication group = 12.5$\pm$1.8), Physiologic Score (25.4$\pm$5.1 vs. 23.7$\pm$5.1), Predictive morbidity rate (−2.16$\pm$0.67 vs. −2.51$\pm$0.73), and Predictive mortality rate (0.03$\pm$0.81 vs. −0.40$\pm$0.89) between the complication group and non-complication group ($p < 0.05$). In E-PASS, there were no significant differences between the two groups. For those with a hospital stay over 30 days, there were significant differences in Physiologic Score, Predictive morbidity rate, Predictive mortality rate in POSSUM. There was no relationship between the predictive risk rate and complication group in E-PASS. Moreover, there was no relationship between predictive risk rate and CRS (Comprehensive risk score) in E-PASS. On comparison of the frequency and extent of lymph node dissection by age group, patients over 80 y.o. underwent D1 or D0 dissection significantly more frequently than patients under 80 y.o. (40.5% vs. 65.1%).
Conclusion: In this study, POSSUM was more sensitive for predicting perioperative risk. When analyzing the results of predictive morbidity rate in E-PASS, patients over 80 y.o underwent D1 or D0 dissection more frequently than patients under 80 y.o group in our center. It is considered that the surgeon's selection of surgical methods strongly influences the clinical outcome.

4005 ORAL

A Retrospective Audit of Adjuvant Chemotherapy Offered Elderly Patients for Colorectal Cancer

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Background: This retrospective audit assesses the management & outcome of elderly ($\geqslant$75 years old) patients over a 5 year period after undergoing resection of a colorectal primary.
Method: All cases of elderly patients having undergone curative resection for a colorectal primary, between 1.7.2004 & 30.6.08, at University Hospitals of Leicester NHS Trust, for a Dukes' B or C tumour were reviewed. Data was collected from sources including electronic databases, notes & community physicians. Criteria for exclusion from analysis included metastatic disease at presentation, neoadjuvant (chemo) radiotherapy, endoscopic resection & death prior to surgery.
Results: 328 pts (167 male) were analysed, median age 80.8 yrs (Range 75−95) & 142 Dukes' C cancer. 88 (27%) were referred to oncology for consideration of adjuvant chemotherapy & of these 43 received chemotherapy (38 Dukes' C). For pts reviewed in oncology, those receiving chemotherapy had a significantly better initial PS than those who didn't (age was NS). Of those 45 reviewed by oncology but who did not receive chemotherapy, patient choice was the main factor for patients who did not want treatment (100%), whilst co-morbidities (50%) & disease status (27%) influenced oncologists' opinion in not offering treatment.
The type of chemotherapy administered was weekly 5-FU (20 (46%) pts), capecitabine (20 (46%) pts) & FOLFOX-4 (3 (7%) pts). Of these 24 patients experienced no $\geqslant$G3 toxicity, 5 had 1 $\geqslant$G3 toxicity whilst 14 had 2 or more $\geqslant$G3 toxicities (capecitabine was the main causative agent). The majority of $\geqslant$G3 toxicities experienced were diarrhoea & PPE. Multiple G1 & G2 toxicities were documented including diarrhoea, lethargy & conjunctivitis.
Treatment completion rate was 65% for 5-FU, 55% capecitabine & 0% FOLFOX-4. Overall survival was significantly different between those who received chemotherapy & those that didn't (4.07 vs 3.27 yrs, $p = 0.045$), however time to recurrence was not significantly different. OS from time of recurrence was poor in both groups − 189d & 110d respectively (NS).
Conclusions: In our elderly population those with better PS & Dukes' C rather than B cancer were more likely to be offered & receive chemotherapy. Patient choice & co-morbidities were the main reasons for not receiving adjuvant treatment. Weekly 5-FU was seemingly better tolerated than either capecitabine or FOLFOX-4. Chemotherapy did influence OS but not TTP. After recurrence, life expectancy in this group is poor at 3 to 6 mths.