Conclusion: In the majority of patients with symptomatic primary or recurrent RC, PPRT with 30-39 Gy contributes to relief of pain, rectal dysfunction, hematochezia, and other pelvic symptoms, with little toxicity. A large proportion of patients prescribed PPRT of RC have very limited life expectancy and future studies should investigate patient selection and further simplification of PPRT.

Poster: Clinical track: Elderly

PO-0780
An analysis of elderly patients compliance and disease distribution treated with radiation therapy
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Purpose or Objective: In this study, we investigated the disease distribution and analyzed treatment compliance for the elderly patients received radiation therapy (RT).

Material and Methods: Among the patients underwent RT from January 2005 to May 2014 in this hospital, the 670 patients aged over 75 were retrospectively analyzed in this study. We classified the patients for each disease and analyzed the RT compliance for each disease. The RT compliance was determined whether or not the scheduled RT plan was completed. The Chi-squared test and multiple logistic regression analysis were used for the factors (region, economic status, age, gender, disease type, treatment aim, ECOG score) influencing the RT compliance.

Results: The mean age of the patients was 78 years (range; 75-99 years). The disease distribution was as follows; Lung cancer in 127 patients (19.0%), metastasis in 123 patients (18.4%), gastrointestinal (GI) cancer in 116 patients (17.3%), gynecologic cancer in 110 patients (16.4%), head and neck cancer in 53 patients (7.9%), genitourinary cancer in 44 patients (6.6%), breast cancer in 30 patients (4.5%), hematologic cancer in 22 patients (3.3%), skin cancer in 17 patients (2.5%), brain tumor in 9 patients (1.3%), and others in 19 patients (2.8%). The RT compliance in total 670 patients was 82.6% The 116 patients of all patients could not complete their course of scheduled treatment. According to χ2 test analysis, the factors found to be related to the RT compliance were; gender (p=0.001), disease type (p=0.014), and patient’s ECOG score (p<0.001). Multiple logistic analysis showed that gender (p=0.016) and patient’s ECOG score (p=0.001) were related to RT compliance.

Conclusion: Based on these preliminary results, more than 80% of elderly patients received RT for lung cancer, metastatic cancer, GI cancer, gynecologic cancer, head and neck cancer, and genitourinary cancer. This study showed that the most significant factor related to RT compliance was the patient’s functional status. Further comparative studies with younger patients are also needed.

PO-0781
Hypofractionated or conventional radiotherapy for early glottis cancer. Does age influence?
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Purpose or Objective: To evaluate the effect of shortening overall treatment time by hypofractionated radiotherapy for cT1-T2N0M0 glottic carcinomas. Results for local control, survival and toxicity were calculated and compared to cT1-
T2N0M0 tumors those received conventionally dose fraction schedule, by age group, less than 65 years old or greater.

Material and Methods: Between 2005 and 2008, 72 patients with cT1N0M0 and 47 with cT2N0M0 glottic cancer were treated with radical conventional radiotherapy (2Gy/fraction, 5 days per week total dose 70Gy and T2 GY: group 1), 87/119 over 65 years old. Between 2009 and 2013, 34 patients with cT1N0M0 and 31 with cT2N0M0 glottic cancer were treated with radical hypofractionated radiotherapy (2.75Gy/fraction, 5 days per week, total dose 55Gy and 57.75Gy: group 2), 52/65 over 65 years old. Toxicity was evaluated according to RTOG toxicities scale.

Results: The 5-year local control was in group 1 was 86% for T1 and 78% for T2, in group 2 was 90% for T1 and 88% for T2, whereas the 5- year overall survival was in group 1: 72% for T1 and 67.7% for T2 ; in group 2: 73.8% for T1 and 70.7% for T2. The treatment was well tolerated. No significant statistical difference was found between the two groups, or by age group. Only grades 1 and 2 acute skin and dysphonia toxicity with good voice quality were observed and no evidence of severe late toxicity.

Conclusion: Hypofractionated radiotherapy proved beneficial for T1-T2 glottic carcinoma with no increase of toxicity and a good local control, well tolerated in older patients, over 65 years.

PO-0782
Stereotactic body radiation therapy for primary lung cancer in the elderly
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Purpose or Objective: To evaluate stereotactic body radiation therapy (SBRT) for primary lung tumors in patients over 75 years old.

Material and Methods: Between 2002 and 2015, 62 elderly patients with 65 lung primary tumors (T1-T2N0M0) were treated using SBRT at our institution. SBRT procedure involved: Slow-scan computed tomography (CT) simulation with immobilization devices, contouring the target volume in 3 sets of CTs, superimposing the volumes in the planning system to represent the internal target volume and dose calculation using heterogeneity correction. Radiation delivery with multiple static planar or non-coplanar beams and arc therapy assured conformal dose distribution and steep fall-off of the radiation. The prescribed dose was 3 fractions of 15 Gy each (90%) over 6 to 10 days or a single 30-Gy fraction (10%). Dosimetric constraints were set for surrounding organs at risk. Repeated cone-beam CT (2 previous and 1 after radiation administration) were used to verify and adjust daily positioning. Toxicity and radiologic response were assessed in follow-up visits, using standardized criteria (RTOG and RECIST) and analyzed retrospectively. Survival rates and toxicities were calculated by the Kaplan-Meier method.

Results: Median patient age was 81 years (75-88). All patients had good performance status at the moment of treatment (ECOG PS 0-1). Because of patient’s comorbidities or preferences, none were surgical candidates. The FEV1 was over 30 % of predicted in all cases. 7 % of all patients also received systemic treatment before or after SBRT. 83 % of the patients had 18-FDG PET-CT previous to SBRT. Histology included: epidermoid (48 %), adenocarcinoma (14 %), undifferentiated NSCLC (19 %), microcytic/neuroendocrine (4 %) and PET positive tumors without histology (15%). Mean tumor volume was 28.4 cm3 (1.2-143). Transient grade 1 or 2 acute toxicities (cutaneous erythema, esophagitis or respiratory symptoms) occurred in 18.4% of all cases. No grade > 3 acute or any chronic toxicities were identified. The median follow-up was 24 months (3-65). The overall and cancer-specific survivals were: 80 and 85 % at 1 year and 64 % and 70 % at 2 years. Control in the irradiated volume is 98 %, the only relapse occurring in a patient with neuroendocrine histology.

Conclusion: SBRT is an excellent treatment option for lung tumors in elderly patients in whom other treatment options might be limited. Our encouraging results are in line with those reported in recent literature for younger patients.

Poster: Clinical track: Health services research / health economics

PO-0783
Implementation of a trial outpatient clinic to improve participation and data collection in trials
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Purpose or Objective: Participation of patients in trials and quality of trial data collection are important factors hampering successful execution of clinical trials. Our aim was to design a system to increase patient participation in clinical radiotherapy trials and to install a process that would lead to a higher quality of data collection during treatment and follow-up.

Material and Methods: In 2013 we implemented a Trial Outpatient Clinic (TOC) for prospective screening of all patients referred to our radiotherapy institute, in order to identify potential trial candidates and to support radiation oncologists during the informed consent procedure and the work-up phase before the patients’ treatment within the trial. During treatment and follow-up, dedicated TOC consultations facilitate a rearrangement in trial data collection from radiation oncologists to trial (physician) assistants of the TOC. Patient inclusion in trials was measured in relation to the total number of radiotherapy treatments in our institute per year from 2005 to 2014. Quality of data collection was subjectively analysed based on completeness of CRF’s and consistency of data. In addition, a questionnaire was provided to a random subset of seventeen trial participants to evaluate their satisfaction with the TOC. Interviews with seven radiation oncologists were performed to evaluate their experience with the TOC.

Results: The percentage of trial patients as compared to the total number of treatments declined between 2005 and 2008 from 6.6% to 3.8%. After implementing the TOC, this number increased to 5.3%. In 2014 we observed an increase to 9.3% despite a decline in the number of trials open for inclusion in the last two years. CRF’s were found to be more consistent and complete. The participants’ questionnaire showed that 82% was very satisfied having one contact person for trial related issues and 71 % thought that the existence of the TOC had added value. Participants did not think it bothersome having additional consultations and experienced an extra benefit by becoming more familiar with TOC personnel. Radiation oncologists were satisfied about the TOC as rearrangement of data recording was beneficial to them and less laborious.