22.4° at 6 weeks, p < 0.001. The SPADI pain and disability score also indicated significant improvement in PRET arm at 6 weeks when compared to standard arm (p < 0.05)

Conclusion: Early institution of PRET program provides maximal benefit to the post surgical oral cancer patients undergoing RT than active exercises only and should be considered the standard of care.

EP-1062
Primary (chemo)radiation therapy in organ-sparing treatment of tongue squamous cell carcinoma

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Purpose or Objective: To evaluate the efficacy of primary (chemo)radiation therapy in a organ-sparing combined or radical nonsurgical treatment modality for tongue squamous cell carcinoma.

Material and Methods: From January 2003 to January 2015 166 consecutive patients with histologically proven the base (49 pts, 30%) and the mobile part of the tongue (MOT) cancer (117 pts, 70%) received radiotherapy (concomitant) to the dose of 50Gy in the preoperative mode treatment and to 70Gy as radical irradiation. Most of them suffered from III (39%) and IV (35%) staged tumors, with the invasive nature of growth at 88% and regional metastases in 70%. Patients with base of tongue (BOT) cancer had locally advanced process more often (69% vs 66%), especially stage IV (69% vs 20%). Nons resectable process was diagnosed in 38% patients with BOT cancer and in 23% cases of MOT cancer primary tumor. We also assessed tumors for potential biologic predictors of treatment effectiveness (p53, COX-2, VEGF, Ki67, E-cadherin, p21, Bcl-2 and others). Radiomodification with 5FU/cisplatin or cisplatin/cetuximab was performed in 133 (80%) cases. All patients started with photon external beam radiation to the dose of 50Gy with subsequent decision of necessity of surgery by applying our prognostic model (combined clinical and biological predictive model with multivariate analysis, p<0.05). Nonsurgical treatment was performed in 56 (34%) cases. Patients with BOT primary tumor underwent conservative therapy more often (62% vs 22%). Combined treatment with surgery was performed to 110 (66%) patients, with the preservation of the organ in 76 (69%) cases. Combined organ-sparing surgery was possible in 89 (76%) cases of MOT cancer and only in 16 (33%) cases of BOT cancer.

Results: After irradiation we observed complete response in 21% cases of BOT cancer and 7% of MOT cancer, partial response in 79% and 82% respectively. Stabilization and progression was diagnosed in 8% and 3% of cases MOT cancer. Complete morphological response in surgically removed tissues was obtained in 48% of BOT cancers and 22% of MOT cancers. 5-year general and disease-free survival were 70% and 58% respectively and there was not reliable difference between localizations. Surgical treatment for local relapse were performed 30 of 62 (48%) patients.

Conclusion: In our single experience primary (chemo)radiation therapy has been shown to be feasible and resulted in high probability of organ-sparing treatment with reliable locoregional control, survival and better quality of life.

EP-1063
Patient reported voice outcomes after laser surgery or radiotherapy for T1 laryngeal cancer

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Purpose or Objective: Disease free survival and overall survival figures for early laryngeal cancer (T1) are excellent regardless of treatment modality used; either laser surgery or external beam radiotherapy. Randomised controlled trials of laser versus radiotherapy have failed to recruit. In comparing treatment modalities we must therefore look for other comparators including cost efficacy and patient reported outcomes (PROMs). Voice outcomes are an important PROM in larynx cancer treatment.

Material and Methods: A retrospective review of all patients treated at a regional Head and Neck centre over a 7 year period with T1a and T1b laryngeal cancers and subsequently followed up in the voice clinic. Patients were routinely asked to complete the Voice Handicap Index 10 (VHI-10) as part of standard care. The VHI-10 is an abbreviated version of the VHI which gives a subjective score of the degree of handicap experienced by the patient due to voice quality (Rosen 2004). The abbreviated score is validated and consistent. High scores indicate greater disability due to voice effects. VHI-10 scores and data on disease status were collected. Patients were treated with either Type 1, 2 or 3 carbon dioxide laser cordotomy (as per ELS classification) by a single surgeon or external beam radiotherapy to 55Gy in 20 fractions in 26 days with 6MV photons to a CT planned volume to the larynx only (no elective nodal irradiation)(PTV = CTV+5mm). Patients treated with radiotherapy usually had contraindications to laser surgery (tumour position or access).

Results: 44 patients were identified with follow-up VHI data, 30 of these had been treated with laser surgery (28 with T1a) and 14 with radiotherapy (8 with T1a). Mean follow up was 3.01 years (0.5-5 years). Recurrence occurred in two patients after laser. One patient underwent further laser excision and the other received radiotherapy. There was 100% disease specific survival. The results were analysed by a General Linear Regression model with multiple imputations to address response gaps, using an SBS analysis tool. Both groups showed a statistically significant increase in mean VHI-10 scores over time and from pre-treatment baselines. VHI scores were higher for the radiotherapy treated cohort in the first year of follow up. Return to a VHI score of less than 10 was 6-9 months for laser and 9-12 months for radiotherapy.

Graph shows average VHI score from pre-treatment up to 62 months post treatment.

Conclusion: PROMs are an appropriate way to compare treatment modalities with similar disease outcomes. The VHI-10 is an appropriate PROM for patients treated for laryngeal cancer. In an unselected retrospective population subjective voice outcomes are no worse with laser than with radiotherapy and therefore laser may be a preferred option due to lower cost and greater convenience.

EP-1064
Reirradiation results in head and neck tumours

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Purpose or Objective: The treatment of choice for recurrences or second tumors of head and neck area, in areas...
previously irradiated surgery is not always feasible. The poor results obtained exclusive chemotherapy. We have the objective to study treatment outcome in these tumors recurrent head and neck, previously irradiated.

Material and Methods: We evaluated 57 patients with recurrent disease, between 2005 to 2014. 27 larynx, 6 nasopharynx, 12 oropharynx, 6 hypopharynx and 6 oral cavity. The initial dose received between 50 and 70 Gy, 25/57 received radical radiotherapy, 17/57 radical chemoradiation; other adjuvant radiotherapy, of which 8/57 was combined with chemotherapy. In 24/57 nodal recurrence (N1-N2), local 18/57 (T2-T4), 6/57 local-nodal recurrence, 9/57 seconds tumor,. Reirradiation with external 3D conform/IMRT techniques/ and dose between 50 Gy and 70 Gy. Time between initial treatment and relapse: 11 to 72 months.

Results: 39/57 cases were complete response, 8/57 partial response, 7/57 stabilization, 3/57 progression. Late toxicity: xerostomia (G: 2 26/57, G: 3 4/57), moderate fibrosis (6 /57, one case trismus), 2 osteoradionecrosis fistula required surgical treatment. Local control: 80%, median survival one year and 50% 2 years free of disease, two died of distant metastasis greater than 35 months after second treatment.

Conclusion: This type of treatment, once considered contraindicated, after analyzing various authors, the potential has not seen a high incidence of severe damage expected in healthy tissues. Aggressive treatment of this disease recurring, allowing long survival, even in extensive disease is superior to best supportive care.

EP-1065
Post-treatment FDG-PET CT in detecting residual disease in head & neck squamous cell carcinoma
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Purpose or Objective: Head and neck squamous cell carcinoma (HNSCC) is the 6th most common cancer worldwide, and both the disease and its treatment are associated with high morbidity. FDG-PET CT imaging can be performed approximately 12 weeks following IMRT to exclude persistent disease at the primary tumour site and/or local neck nodes. This report considers how post-treatment PET CT scans may be utilised to inform the follow up of patients treated for HNSCC.

Material and Methods: A retrospective review of HNSCC patients treated with IMRT with radical intent between December 2010 and February 2013 and who underwent a post-treatment PET CT scan. Overall, relapse-free and loco-regional relapse-free survival calculated from date of biopsy to date of death, relapse or last follow up. PET CT reports were noted and categorised as follows: 'Low-risk' - normal scan 'Intermediate-risk' - showing post-treatment change or inflammation 'High-risk' - in keeping with or highly suspicious of residual disease

Results: 100 patients were identified. Median follow up was 2.8 years (range 58 days to 3.9 years). On review of PET CT reports, 47 patients were categorised as low-risk, 27 as intermediate-risk and 26 as high-risk. 13 of the 26 high-risk patients underwent a subsequent biopsy, with residual disease in 3. 6 of the 27 intermediate-risk patients underwent biopsy, with residual disease in 1. 3-year overall survival was 93.3% (95% C.I. 80.7 to 97.8%) for the low-risk group, 79.3% (95% C.I. 56.7 to 91.0%) for the intermediate-risk group and 38.8% (95% C.I. 18.3 to 58.9%) for the high-risk group [p <0.0001].

Conclusion: This report confirms the validity of the 12-week post-treatment PET CT scan in identifying the risk of loco-regional relapse and death following IMRT treatment for HNSCC. This information could be used to identify patients in a good prognostic group who may benefit from entering follow-up protocols aimed at addressing psychosocial and survivorship issues, with high-risk patients undergoing more intensive follow-up aimed at detecting relapse of disease.

EP-1066
Low FDG-PET detection rate of the primary tumor for patients with cervical lymph node metastases
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Purpose or Objective: FDG-PET is perceived as a valuable diagnostic tool for patients with cancer of unknown primary (CUP). In the literature, detection rates are approximately 30% for pooled patient populations. Patients with isolated neck lymph nodes of squamous cell carcinoma, are usually examined by an ENT specialist with panendoscopy, sampling blind biopsies, CT or MRI of the neck, sometimes ultrasound of the neck and a chest CT. After these examinations have been performed without finding the primary cancer, FDG-PET detection rates are reported to be approximately 25%. For our head and neck cancer patient population with CUP intended for definitive radiochemotherapy, we hypothesize that the previously reported FDG-PET detection rates are too high.

Material and Methods: In our hospital during 2007-2013, 361 head and neck cancer patients had an FDG-PET-CT examination in fixation mask as part of the radiotherapy treatment planning. In this group, 31 patients had cervical lymph node metastases of squamous cell carcinoma of unknown origin.

Results: Two (cancer of the vallecula and esophagus) of these 31 patients had their primary cancer detected by FDG-PET-CT giving a detection rate of 6.5% (95% C.I.: 2%, 21%).

Conclusion: The FDG-PET detection rate of the primary cancer for patients with cervical lymph node metastases of squamous cell carcinoma, who have been through the standard diagnostic work-up, is lower than previously reported. FDG-PET may be less useful for this purpose than what has been anticipated.