

49.42 Gy(right), temporal lobe: 61.67 Gy (left) & 62.67 Gy (right). Median value of mean dose to OAR were- parotid: 16.21 Gy (left) & 19.78 Gy (right) & oral cavity: 28.62 Gy. Median number of KVCBCT done per patient was 10. Median translational error (cm) in x, y & z axis was 0.1, 0.19 & 0.15 respectively. Acute radiation morbidity included dermatitis: Gr1(60%) & Gr2(40%), mucositis: Gr2(80%) & Gr4(20%), salivary gland toxicity: Gr1(100%), conjunctivitis: Gr1(60%) & Gr2(20%), pharyngitis: Gr1(60%) & Gr2(40%). 3 months after completion of RT (median follow-up 10.5 months) all pts are disease free as assessed by clinical, endoscopic & radiological examination. Median global health status (QoL) declined from 83.33(pre-RT) to 75 (immediate post-RT) but recovered back to baseline value 3 months post RT. Symptom scores pertaining to pain, swallowing, sense organ dysfunction, social eating, mouth opening worsened immediately after RT (median -33.33) but gradually came back to baseline level (median -0) 3 months after RT.

**Conclusion:** Adjuvant IGIMRT in locally advanced sinonasal cancer permits precise delivery of radiation to the target with sparing of the adjacent dose-limiting OAR with favorable toxicity profile, excellent quality of life & promising early clinical outcome.

## 8561

## POSTER

### Outcome of Squamous Larynx Cancer (LC) in Patients Aged >70 – a Mono-institutional Case-series Review

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Conservative surgery (CS) is favoured in stage I and II. In advanced stages (III and IV) total or partial laryngectomy (TL) or in alternative organ preservation protocols including chemo-radiotherapy (CRT) are resorted to. Notably the concomitant use of chemo in addition to RT has no effect on survival with increasing age (Pignon J, Radioth Oncol 2009). Few data are available about LC management and outcome in patients aged ≥70.

**Methods:** We retrospectively reviewed the clinical records of unselected LC patients aged ≥70 curatively treated at our Institute from 2005 to 2010. Comorbidities were scored according to Adult Comorbidity Evaluation-27 (ACE-27) and the stage was revised according to AJCC VII<sup>o</sup> edition (2009). Overall survival (OS) curves were estimated with the Kaplan-Meier method. To study the association between mortality and prognostic factors (age, treatment, grade of comorbidity, tumour site and stage), we also applied univariable and multivariable relative survival regression models; this methodology allows adjusting for natural mortality, which largely affects OS in elderly, thus minimizing the impact of deaths for causes unrelated to LC.

**Results:** Seventy-eight pts (72M/6F) were identified (median age 74, range 70–88). Glottic cases were 50, supraglottic 20 and glottic-subglottic 8. At presentation primary tumours were 58, larynx recurrence 19 and 1 was a 2<sup>nd</sup> laryngeal tumour. Stage was I-II in 40 and III-IV in 38 pts. Thirty-one patients (40%) had comorbidities equal to or greater than A2. Thirty-three patients, 29 of whom with stage III and IV, were submitted to TL, followed by RT (10/33) or CRT (2/33); nine patients received a CS procedure (stage I and II in 8 cases); 29 pts were treated with RT (stage I and II in 27 cases); only 7 patients, all but one with stage III and IV, received CRT. With a median follow up of 29 months (interquartile range: 15–52), 25 patients (32%) experienced a relapse (13 T; 6 N; M 5 and T+M 1), 14 pts died (2 without disease) and 64 were still alive, 6 of whom with disease. Whole series 3-year OS was 82%.

#### Relative survival analysis

|   | Univariable |        |        | P     | Multivariable |        |        | P     |
|---|-------------|--------|--------|-------|---------------|--------|--------|-------|
|   | HR          | CI min | CI max |       | HR            | CI min | CI max |       |
| Age (years), 78 vs 72                   | 1.09        | 0.59   | 2.03   | 0.780 | 1.20          | 0.61   | 2.36   | 0.601 |
| Tumour site                             |             |        |        |       |               |        |        |       |
| Glottic-subglottic vs glottic           | 0.47        | 0.06   | 3.75   | 0.754 | 0.22          | 0.02   | 1.92   | 0.353 |
| Supraglottic vs glottic                 | 1.08        | 0.29   | 4.01   |       | 0.61          | 0.15   | 2.43   |       |
| Treatment                               |             |        |        |       |               |        |        |       |
| TL vs CS                                | 2.74        | 0.47   | 15.95  | 0.166 | 2.21          | 0.18   | 27.15  | 0.365 |
| CRT vs CS                               | 0.86        | 0.07   | 11.06  |       | 0.56          | 0.03   | 12.12  |       |
| RT vs CS                                | 0.55        | 0.07   | 4.20   |       | 0.50          | 0.06   | 3.94   |       |
| Stage, III-IV vs I-II                   | 3.67        | 1.01   | 13.37  | 0.049 | 1.99          | 0.28   | 14.43  | 0.494 |
| Comorbidity, A2-A3 vs no comorbidity-A1 | 2.56        | 0.84   | 7.87   | 0.099 | 1.83          | 0.57   | 5.92   | 0.310 |

HR: hazard ratio. 95% CI confidence interval. P = p value at Wald test.

Legend: CRT includes in 6 cases (NB: 2 patients received induction chemotherapy before concomitant chemo-radiotherapy); one patient received induction chemotherapy followed by RT.

**Conclusions:** Chronological age, form of treatment, tumour site and comorbidities did not influence the oncologic outcome in this population.

Probably due to the limits of the analyzed series (retrospective review; patients selection along with the low number of patients) and to the high correlation between stage and treatment, stage failed to reach significance at multivariable analysis.

## 8562

## POSTER

### Incidence of Radio-dermatitis in Head and Neck Cancer With 3D Conformal Radiotherapy and Prophylaxis With Topic Cream

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**Background:** Radio-induced dermatitis is one of the most frequent side effects of radiotherapy, its estimated that between 80–90% of irradiated patients experience some degree of dermatitis. In head and neck cancer is the second most important toxicity behind mucositis, but there are not standardized guidelines for its prevention with topic cream and the effect of new planning techniques, and treatment. We evaluate the effectiveness of 3D conformal radiotherapy and topic use of a lotion containing 3% urea, polidocanol and hyaluronic acid for preventing the occurrence of acute radio dermatitis and evaluate its severity comparing with historical series treated with 2D technical for head and neck cancer.

**Materials and Methods:** Prospective observational study in 194 patients with head and neck cancer with 12-week follow up period between 2009 and 2010. Skin toxicity RTOG was evaluated weekly. We compared incidence and grade of toxicity with 300 head and neck cancer patients treated with 3D conformal radiotherapy in our centre during 2007–2008, and 150 patients treated during 1998, with 2D technical, both with skin support measures.

**Results:** The proportion of patients who didn't develop radiodermatitis was significantly higher in the lotion urea use group (24.2% vs 13.8% vs 2.3%; p < 0.05). The lotion urea use showed lower incidence of radiodermatitis (70.2% vs 83.7% vs 97.6%) and lower grade of toxicity (p < 0.05) and lower proportion of radiodermatitis grade 2 or higher (23.4% vs 51.3% vs 62.7%).

**Conclusions:** The use of urea 3% hydrating lotion during treatment and beginning three weeks before start radiotherapy, is an effective agents for the prevention of radiodermatitis in head and neck cancer patients, reducing the incidence of skin toxicity and lower incidence of radiodermatitis grade 2 or higher.

## 8563

## POSTER

### Reirradiation in Head and Neck Tumours

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**Background:** The treatment of choice for recurrences or second tumours 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 tumours recurrent head and neck, previously irradiated.

**Material and Methods:** We evaluated 19 patients with recurrent disease, between 2005 to 2010. 6 larynx, 5 nasopharynx, 5 in oropharynx and three patients in oral cavity. The initial dose received between 50 and 70 Gy, 3/10 received radical radiotherapy, 2/10 radical chemoradiation; other adjuvant radiotherapy, of which 8/14 was combined with chemotherapy. In 4/19 nodal recurrence (N1-N2), local 15/19 (T2-T4). Reirradiation with external 3D conformal techniques and dose between 30 Gy and 70 Gy. Time between initial treatment and relapse: 11 to 72 months.

**Results:** 15/19 cases were complete response, 3/10 partial response, 1/19 stabilization. Toxicity: xerostomia (G2: 4/19, G3: 2/19), moderate fibrosis (6/19, a case trismus), 1 osteoradionecrosis fistula required surgical treatment. Local control: 80%, median survival one year and 50% 2 years free of disease, died of distant metastasis 35 months after second treatment.

**Conclusions:** This type of treatment, once considered contraindicated, after analyzing various jobs, 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.