

Patients and Methods: From January 1991 to December 2010, 160 patients with T1-T2N0M0 vocal cord carcinoma were treated with curative intent. Of them, 107 (67%) received surgery and 51 (33%) radiation therapy. Surgery consisted in endoscopic laser excision in 45% of cases, and cordectomy in 22%. Three fractionation regimens were used for radiation therapy: 66–70 Gy at 2 Gy/fx; 63 Gy at 2.25 Gy/fx, or 60 Gy at 2.5 Gy/fx, 5 fx/week in all cases. Twenty five patients from the surgery group and 22 from the radiation group responded to the VHI questionnaire in their last follow-up visit, at least 3 months after treatment. The VHI consisted on 10 voice-related questions, scored from 0 to 5, being 0 the minimum voice impairment (minimum dysphonia) and 5 the maximum (maximal dysphonia).

Results: With a median follow-up of 73 months, there were no significant differences in 5-year disease-free survival among patients treated with surgery (92%) or radiotherapy (84%). Mean value of VHI-10 was 0.9 for the radiation group and 1.08 for the surgery group. Only one patient in the radiation group had a score >2 (4%), whereas 5 patients in the surgical group (22%) had scores >2 (range 2–3.2). There were no differences in voice quality between the different fractionation schemes. Neither were significant differences between patients treated with laser excision or cordectomy.

Conclusions: Radiation therapy highly preserves the quality of the voice in patients with early glottic cancer. Compared with surgery, no statistically significant differences were found globally, though a higher percentage of the surgical patients referred more severe impairment of their voice.

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POSTER

Trends in Incidence of Head-and-Neck Tumours Based on Human Papillomavirus Infection – Differences Between North and South of Portugal

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Background: The recognition that human papillomavirus (HPV) plays any role in head-and-neck tumours (HNT), has important implications for cancer prevention. As vaccination for HPV becomes widely available, it is necessary to know the real distribution and incidences of HNT at different anatomical sites and whether the incidence of HPV-associated and potentially HPV-associated cancers are increasing.

Material and Methods: Data were extracted from two Population-Based Cancer Registries (Oncological Registry of North and Oncological Registry of South of Portugal). 12,357 HNT were analyzed since 1996–2006 in a population of 7,700,062 residents. Crude and age-standardized incidence rates (European population) were calculated considering sex, age group and country regions. The anatomical sites analyzed were that included in the International Classification of Disease, tenth edition as C00-C14 and C30-C32. To assess impact of HPV infection, the squamous cell carcinomas sites were categorized according to anatomical location, as: HPV-associated, potentially HPV-associated or unrelated. The relation between incidence and these groups were evaluated with a Poisson regression model.

Results: Crude and age-standardized incidence rates were 29.7 and 28.0/100,000 for men and 4.3 and 3.2/100,000 for women. From the first period (1996–1998) to the last one (2005–2006), the standardized rates increased in both sexes (in men from 27.3 to 29.9 and for women from 2.9 to 3.9). The annual change on the rates was estimated in 1.82%. The incidence variation was explained in 84% of the cases by age, sex and HPV infection. The most frequent anatomical sites in both regions were oral cavity, lip and larynx. The incidence rate ratio for the potentially HPV-associated tumours was 4.2 times greater when compared with the HPV-associated after controlling the variables sex, age, period of time and country region.

Conclusions: We observed a significant increase in the incidence of these tumours over time, with higher incidence rates in the South of the country. The HPV infection plays a determinant role in the epidemiology of these tumours and the groups classified as potentially HPV-related were definitively those with the major incidence rates. Further studies are necessary to assess the effect of HPV vaccine on these tumours.

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POSTER

Effects of Antiemetic Prophylaxis With Aprepitant on Outcomes From Primary Chemoradiation for Locally Advanced Squamous Cell Carcinoma of the Head and Neck (LASCCHN)

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Background: Antiemetic prophylaxis is known to improve tolerability of chemoradiation (CRT) for LASCCHN, but the effects on treatment outcome are less established. We explored the effects of the neurokinin-1 antagonist aprepitant in this single-institution retrospective review.

Material and Methods: Patients with LASCCHN of the oropharynx, oral cavity, hypopharynx, and larynx diagnosed January 1, 2006 – January 1, 2009 and treated with primary CRT were identified. Patients treated with adjuvant or palliative intent were excluded. Treatment and outcome data were collected by chart review. Aprepitant use was determined from pharmacy prescriptions and records. Outcomes were assessed in two eras based on the availability of aprepitant in Canada – period A: January 1, 2006 to September 30, 2007, and period B: October 1, 2007 to January 1, 2009.

Results: 148 patients (74 in each period) met inclusion. Patient and tumour characteristics were similar between periods A and B, including stage (18.2% III, 62.2% IVA, 19.6% IVB), oropharynx primary (67.6%), and male gender (83.1%). Mean RT delivered was 6861 cGy (range, 3800–7210), and concurrent chemotherapy consisted of high-dose cisplatin 100 mg/m² (HDC, 62.8%), weekly carboplatin (14.9%) or cisplatin (9.5%), or cisplatin/docetaxel/5-FU induction followed by weekly carboplatin (TPF-CRT, 12.8%). Median overall survival was 28.8 months with median follow-up of 36 months. Aprepitant use was higher in period B (67.6 vs 5.4%, p<0.0001), highest with HDC and TPF-CRT regimens in period B (84.7 vs 7.5%, p<0.0001), and associated with more cumulative cisplatin administered (269.2 vs 247.7 mg/m², p=0.046). No changes in surgical salvage post-CRT (27.0 vs 20.3%, p=NS), recurrence (24.3 vs 20.3%, p=NS), or cancer-related death (16.2 vs 16.2%, p=NS) were observed. However, non-cancer and treatment-related deaths were significantly lower in period B (3.4 vs 10.8%, p=0.031). In multivariable Cox regression analysis, tumour stage (p=0.005), age (p=0.005), and oropharynx primary (p=0.019) were predictors of overall survival. Although in this model period B did not reach significance (p=0.09), a sensitivity analysis excluding patients only treated with concurrent weekly carboplatin or cisplatin showed an independent association of period B with survival (HR: 0.63, p=0.042).

Conclusions: In this retrospective cohort, the introduction of routine antiemetic prophylaxis with aprepitant in period B was associated with improved delivery of cisplatin and lower non-cancer related mortality, particularly in patients receiving high-dose (100 mg/m²) cisplatin.

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POSTER

Postoperative Radiochemotherapy in Patients With Head and Neck Tumours With Weekly Cisplatin

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Background: To describe the compliance, acute toxicity and results of a scheme of postoperative RT/QT with weekly cisplatin in patients (p) with squamous cell carcinoma of head and neck.

Patients and Methods: Between March 2004 and June 2010, 88 p were treated with RT/QT postoperative to present a risk factor for local recurrence (pT3, pT4 or N2, N3, or pT1, pT2 with N0, N1 margins of the resection (<5 mm), involvement of two or more lymph nodes, extracapsular extension or vascular tumour embolization). All received 50 Gy in areas at risk of subclinical disease, with boost (total dose 66 Gy) in high risk areas, in fractions of 2 Gy/day, 5 days a week. Concomitantly planned weekly administration of cisplatin 40 mg/m² starting week 1 of radiotherapy. The statistical package used was SPSS version 17.

Results: The median age was of 58.5 years (range: 36–82 years), 69 males and 19 females. 6p were stage II, 20 p were stage III, 53 p were stage IV-A and 9 pts were stage IV-B. The primary tumour was located in the larynx in 34 p, oropharynx in 17, oral cavity in 26, hypopharynx in 3, other locations in 8. Of the 88 p, 80% received at least 5 cycles and 42% 6 cycles of chemotherapy. No G4 acute toxicity was observed. 29 p showed toxicity G3 (33%). The most common acute toxicity G3 was: mucositis in 21p (24%), and hematological in the rest. The median follow-up was 33 months (range 4–82 months). The specific cause SG at 2 and 5 years was 81% and 58% and DFS at 2 and 5 years was 74% and 61%. The factors