

There is also need to make some new guidelines for adjuvant treatment in presence of these adverse factors for better outcome in oral cancer patients.

#### 8602 POSTER Guideline Adherence in Older and Younger Patients With Head and Neck Cancer

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**Background:** Determining whether non-standard treatment of patients is an adequate adjustment to the patient's comorbidity, overall physical condition and wishes, requires examination of the motivation behind treatment choices made. Therefore, the object of this study was to map out current treatment practice in our centre and examine factors associated with non-adherence to treatment guidelines.

**Methods and Materials:** Retrospective analysis of 606 patients (median age 65.3 years) newly diagnosed with a squamous cell carcinoma of the oral cavity, lip, larynx, hypopharynx or oropharynx treated at Medical Centre Alkmaar between 1997 and 2009. Treatment was compared to guideline recommendations. Multivariate analyses were performed to determine factors associated with non-adherence and outcome.

**Results:** 91% of patients were treated in accordance with guidelines; adherence was 88% for surgery, 91% for radiotherapy and 92% for chemotherapy. Increasing age, stage and comorbidity were associated with decreasing guideline adherence. Primary reasons for non-adherence were comorbidity and lack of cooperation in younger patients, and patient's refusal for older patients. At one, two and five years, higher age, more advanced stage of disease and the presence of recurrent disease were associated with mortality. The association of comorbidity with mortality decreased over time; it was an independent predictor of one year mortality only. Of note, after correction for age, stage and comorbidity, treatment that was discordant with guidelines was associated with poorer outcome at all endpoints (hazard ratio 5.26 at one year, 4.21 at two years and 3.90 at five years).

**Conclusion:** Discordance with treatment guidelines was less than 10% at our centre, was associated with age, stage and comorbidity and was associated with a significantly poorer outcome. However, legitimate reasons exist for not following guidelines and treatment decisions should always be adapted to the individual patient's situation and preferences.

#### 8603 POSTER Intra-arterial Fluorescence Diagnostics of Oral Cancer

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**Background:** Early detection of oral cancer improves the results of treatment. Fluorescence diagnostics (FD) helps to identify the real margins of malignant tumour. However, in some cases the artefactual fluorescence of healthy mucous appears. The aim of this study was to investigate the possibilities of intra-arterial fluorescence diagnostics (I/a FD) of oral cancer as more sensitive, effective and more specific method of FD.

**Material and Methods:** The total of the 20 patients with malignant recurrent oral cancer underwent I/a FD. A catheter was inserted selectively into the feeding artery of the tumour via the superficial temporal artery. Photofrin (10 mg) was injected via catheter directly into the tumour. 1 and 4 h. after injection the mucosal tissues of hypopharyngeal and oropharyngeal regions were illuminated with  $\lambda = 405$  nm violet light. Spectroscopic investigations of malignant and healthy tissues were performed too. There were 73 patients with malignant recurrent oral cancer who underwent systemic fluorescence diagnostics too. There was the control group, which consist of 60 patients for whom sensitized tumour therapy was provided for the treatment of different malignant not head and neck tumours. The fluorescence diagnostics measurements and spectroscopic investigations of malignant and healthy tissues were performed for these 73 and 60 patients too. Photosensitizer was injected i.v. (2.5 mg/kg) and after 24–48 h the mucosal tissues of oropharyngeal regions were illuminated with  $\lambda = 405$  nm violet light.

**Results:** The specific pink fluorescence of malignant tissue was noticed providing the illumination of tumour with violet light. Margins of fluorescence usually coincided with the ones of malignant tumour. In doubt cases, the biopsy and morphological examination of tissue was provided. All malignant tumours, except melanoma showed a specific pink fluorescence

when illuminated with violet light, and no fluorescence was noticed in normal mucosa. However, in some cases glow artefacts were observed. We established these "glow artefacts" – a non specific lilac fluorescence in a healthy mucous in 9 of 73 patients with head and neck cancer and in 14 of 60 control group patients. Usually the artefactual fluorescence was noticed in the gums – 18 cases and in a basis of tongue – 14 cases. The experienced investigator usually can differentiate pink fluorescence of tumour from lilac artefactual fluorescence, but there is a possibility for diagnostic miss. There was only 1 case of artefactual fluorescence in 20 patients who underwent I/a FD.

**Conclusions:** Fluorescence diagnostics is useful for early detection of primary and recurrent malignant oral tumours except melanoma. However, the artefactual fluorescence in the gums or in the basis of tongue can appeared. I/a FD lets avoid these artefactual fluorescence.

#### 8604 POSTER Nasopharyngeal Carcinoma in the West of Algeria – Long-term Outcomes and Prognostic Factors

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**Background:** The objective of this study was to discuss the clinical feature, long-term outcome and determine the prognostic factors of nasopharyngeal carcinoma (NPC) in the west of Algeria.

**Patients and Methods:** Retrospectively analyzed patients with NPC (n = 200) who were underwent at our department between 2002–2005. Survival rates were estimated using the Kaplan–Meier method. Univariate and multivariate analyses were performed using the Log rank test and Cox proportional hazards regression models respectively.

**Results:** There were 136 males (68%) and 64 females (32%). The mean age was 39.9 ± 1.1 years (Range 12–73). The most common mode of presentation was with a neck lump (78.5%). Stage II, III and IV (UICC2002) were 10%, 31% and 59% respectively. It was undifferentiated carcinoma in 92% of cases, WHO type1 in 6% and WHO type2 in 2%. 91 (45.5%) patients received induction chemotherapy platinum-based (with docetaxel, 5 fluorouracil or epirubicin) followed by radiotherapy (CT/RT) and 109 (54.5%) concomitant chemo-radiotherapy (CCRT). After a median follow-up of 71 months (range 10–106), 81 patients (40.5%) developed recurrences (locoregional and/or distant metastasis). 8-years locoregional control (LRC), disease free survival (DFS) and overall survival (OS) rates were: 82.7% (±2.8%), 58.8% (±3.5%) and 77% (±3.5%), respectively. In univariate analysis, age >40 years (p = 0.02), T3–4 (p = 0.02) and stage IV (p = 0.07) showed poor prognosis for LRC; stage IV (p = 0.02) for DFS; age >40 years (p = 0.08), stage IV (p = 0.01) and CT/RT (p = 0.0001) for OS respectively. In a multivariate analysis, independent prognostic factors were: age (>40 years vs ≤40 years) [p = 0.04 – HR 2.244] and Tumour (T3–4 vs T1–2) [p = 0.08 – HR 2.324] for LRC; Stage (IV vs II/III) for DFS [p = 0.05 – HR 1.628], Treatment (CT/RT vs CCRT) for OS [p = 0.001 – HR 3.392].

**Conclusion:** This retrospective analyses shows that the NPC in the Algerian west is diagnosed at advanced stage with acceptable long term outcome. Another therapeutic sequence associated to the concurrent chemoradiotherapy seems necessary for the advanced stages of the disease (T3–4, stage IV) and the patients aged >40 years to improve the LRC, DFS and OS.

#### 8605 POSTER Symptom, Psychological Distress and Quality of Life in Newly Diagnosed Oral Cavity Cancer Patients – the First 12 Months Experiences

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**Background:** The diagnosis of oral cancer and potential treatments/disease related dysfunction from the oral-facial areas may cause impacts on patients' quality of life (QOL). The purposes of this study were to (1) explore the changes of symptoms, psychological distress (depression and anxiety) and QOL during the first 12 months of being diagnosed as oral cavity cancer, and (2) identify factors related to QOL in newly diagnosed oral cavity cancer patients in Taiwan.

**Materials and Methods:** A 12-month prospective longitudinal study was conducted to examine the changes of symptom severity, psychological distress and QOL. Subjects were recruited from three medical centers in Northern Taiwan and were assessed on 6 time points (days before operation, and 10 days, 1, 3, 6, 12 months post surgery/ T1-T6, respectively). The psychometrically validated Chinese version instruments were used for assessments, including (1) Symptom Severity Scale (SSS),

(2) Hospital Anxiety and Depression Scale (HADS), (3) University of Washington Quality of Life (UW-QOL), and (4) Background Information Form. In addition to using the descriptive statistics, the Generalized Estimating Equations (GEE) was applied to identify the factors related to the changes of QOL. Data were collected after Institute Review Board (IRB) approval and patients' consents.

**Results:** A total of 145 eligible subjects completed the 12 months assessments. The major results revealed that, generally, these patients had moderate levels of QOL with the worst QOL during the first three months (T2–T4). However, some problems have lasted for longer time, such as dry mouth, swallowing, chewing and employment. Patients receiving reconstruction surgery, more advanced cancer stage, having higher levels of depression and symptom severity, without job, and having lower education level had lower levels of QOL across the 12 months.

**Conclusion:** The results suggest that health care professional should systematically assess and care for oral cavity cancer patients' QOL, including cares for acute treatment phase and for survival phase. Further intervention studies should be developed and examined to enhance the evidence based cancer care provided to oral cavity cancer patients.

8606

POSTER

# **Optimising Management Approaches for Locally Advanced Oropharyngeal Squamous Cell Carcinoma (LAOPSCC) – a Retrospective Review of Prognostic Factors and Outcomes in an Asian Tertiary Institution**

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**Background:** Concurrent chemotherapy and radiotherapy (CRT) is the standard of care for LAOPSCC. However, certain subsets of OPSCC may have favourable prognoses, thus raising the question if all patients require similar CRT. This study aims to identify prognostic factors in Asian LAOPSCC and explore patient outcomes according to treatment modality and chemotherapy type.

**Methods:** A retrospective review of resectable LAOPSCC from 2001–2006 were included in this analysis. Patient demographics, risk factors, treatment modalities were collated.

**Results:** Out of the 180 patients, 124 received CRT, 31 received RT alone whilst 25 underwent surgery followed by adjuvant therapy. 74% of the patients were male with median age of 61. 35% were non-smokers. Median OS was 5.2 years. Univariable cox regression analysis showed that older age, male gender, smokers, history of alcohol consumption, higher cancer stage, higher T-stage and N-stage, base of tongue tumours, higher Charlson Comorbidity Index (CCI), moderately differentiated tumours and low albumin were associated with worse overall survival (OS), progression free survival (PFS) and local relapse-free survival (LRFS). After multivariate analysis, smoking status, CCI scores, grade of tumour and cancer stage were independently prognostic for OS. Patients who received RT alone, had a 1.9 times hazard in terms of OS, PFS and LRFS as compared to CRT ( $p=0.02$ ). In an exploratory analysis, after adjusting for age, CCI, smoking status and cancer stage, patients who received cisplatin-based CRT ( $n=98$ ) had superior overall survival compared with non cisplatin based CRT ( $n=26$ ) (HR = 0.36 95% CI 0.19–0.64,  $p=0.001$ ). However, patients who received non-cisplatin-based CRT had similar overall survival compared to RT alone, independent of age, CCI, smoking status and cancer stage (HR = 1.0,  $p=1.0$ ). At first relapse, the local and distant relapse rates were 20.5% and 11.1% respectively. Interestingly, patients with base of tongue involvement experienced a higher rate of local relapse compared to patients with tonsillar involvement (15.5% versus 35.1%,  $p=0.005$ ).

**Conclusions:** Asian LAOPSCC consists of a significant proportion of non-smokers and females. Amongst Asian LAOPSCC, cisplatin-based CRT remains the standard of care. In patients unfit for cisplatin-based treatment, RT alone should be considered.

8607

POSTER

# **Patient-reported Experiences and Needs – Findings From the About Face 2 Survey of Patients With Locally Advanced SCCHN**

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**Background:** The About Face 2 survey was conducted to investigate issues identified by the earlier About Face survey (EJC Suppl 2009; 7(2): abs 8510), including the experiences, needs and quality of life (QoL) of

patients with locally advanced squamous cell carcinoma of the head and neck (LA SCCHN) at pre-diagnosis, at diagnosis and during and after treatment.

**Material and Methods:** Physician-identified patients (pts) in 6 European countries (Belgium, France, Italy, Portugal, Spain, Sweden), diagnosed with LA SCCHN at least 12 months earlier, were asked to take part in face-to-face interviews. Pts were told to base responses on their own experiences and also to describe the impact of the disease and treatment on a hypothetical third party patient. The survey was conducted in accordance with the European Pharmaceutical Market Research Association Code of Conduct. Between March and July 2010, 104 pts were interviewed.

**Results:** At time of diagnosis, the mean pt age was 56 years, 72% were male, 72% were smokers and 62% drank an average of 16 glasses alcohol/week. Treatment had comprised surgery (69%), radiotherapy (RT) (89%) and chemotherapy (CT) (64%) (including combined CT+RT). The most frequently reported side effects were swallowing difficulties (82%; with 40% of pts having required a feeding tube), tiredness (66%), painful throat/mouth (65%), loss of appetite (62%) and speech problems (56%), all of which had significantly impaired patient-reported QoL. From pre-diagnosis to post-treatment, pts identified 5 main areas of need: 1) Education for pts and health care professionals (HCPs) on the signs and symptoms of SCCHN to facilitate early diagnosis; 2) Easy-to-understand information about the disease and treatment options at diagnosis; 3) Help in cultivating a positive attitude to encourage pts to combat the disease, as less motivated pts are less compliant with treatment; 4) Help in making what pts considered to be the best available treatment choices tailored to their condition and 5) Support and counseling from an extended network of resources to help pts deal with financial, practical and psychological issues.

**Conclusions:** Pts surveyed were representative of those treated in daily practice. At every stage of the pts' journey, almost all patient needs centered on the provision of improved education and information, as well as empathy and support from HCPs to help pts with LA SCCHN cope more effectively with the disease and its treatment.

8608

POSTER

# **Study on Effects of Tobacco (Smokeless & Chewed) & Arecanut in Indian Population Not Having Overt Oral Malignancy**

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**Background:** Effects of chewed and smokeless tobacco and arecanut in oral cavity have been widely studied. Factors include from altered taste, halitosis, trismus and psychological issues etc. It is a questionnaire based study in which an effort has been made to study the quality of life based on above facts and to develop a scoring system that can prognosticate quality of life issues. Future of the present study may lie in predicting deteriorating oral quality of life or development of oral cancers in subjects having higher scores. Thus, allowing intervention before oral cancer actually develops.

**Materials and Methods:** It was longitudinal case control study. End point of the study were tobacco smoked or chewed/arecanut had negative effect on oral quality of life. There were two groups control (healthy subject  $n=150$  non users) and study subjects ( $n=296$  users). Questionnaire consisted of 11 questions of different quality of life aspects in Hindi (vernacular) each question having 5 options based on likert scale. Minimum score was 11 depicting good quality of life and highest score was 55 representing significant poor quality of life.

**Results:** Study subjects had higher score range 31% and 16% in 30–40 and 40–55 score groups respectively. No controls had score above 30 that was statistically significant with  $p$  values of  $<0.001$  for both groups calculated by Chi-square test. Study subjects with lower scores were less when compared to control i.e. 14.48% study subjects were between 11–20 compared to 65% of controls. This was also statistically significant with  $p$  value of  $<0.001$ .

Duration of tobacco usage correlated with individual's quality of life and it was evident from this work that study subjects with duration of usage of tobacco/arecanut for  $>15$  years attained higher scores and the percentage of study subjects with lower scores increased for duration of  $<5$  years.

**Conclusions:** Statistically significant difference in scores/quality of life issues of control and study subjects were obtained ( $p<0.001$ ). A non-statistical poor quality of life was seen in study subjects with increased duration of exposure.