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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.

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Guideline Adherence in Older and Younger Patients With Head and

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  $\lambda = 405 \, \text{nm}$  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. Photosensitiser 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 the case of the cas

**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.

4 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 (Range12-73). 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% ( $\pm$ 2.8%), 58.8% ( $\pm$ 3.5%) and 77% ( $\pm$ 3.5%), respectively. In univariate analysis, age >40 years (p = 0.02), 73-4(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 \( \frac{4}{2}\) (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 - 1.008]

**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),