

FLT volumes delineated on PET scans before treatment ($R^2=0.7$ and 0.8 respectively) No correlation was found for CT and FMISO volumes. Strong correlation was found between volumes of FDG and FLT before treatment ($R^2=0.9$). Both FLT and FMISO volumes decreased during treatment. Significant differences were found for FLT volumes before treatment and at the first time point ($p=0.02$) and for FMISO volumes ($p=0.04$).

Conclusions: Assessment of molecular characteristics of head and neck tumours and their changes during treatment may prove a useful tool to be a useful tool for treatment individualisation in advanced head and neck cancer.

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POSTER

Lessons From Culture and Antibiotic Susceptibility of Oral Cancer Flora and its Impact on Perioperative Antibiotics and Post-operative Wound Infections

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Introduction: Peri-operative antibiotic therapy in oral cancer patients has been a subject matter of lot of research and a consensus is yet to be reached. Aim of the study was to study the primary flora of oral cancer and their antibiotic susceptibility.

Methods: Fifty-nine patients were included in the study. Tumour tissue sample was taken in the operation theatre subjected to aerobic culture and susceptibility after induction of anaesthesia but before cleaning, draping and antibiotic injection. Standard peri-operative antibiotics were then given.

Results: Seventy bacteria were isolated from 56 patients. Two patients had sterile culture. One patient had contaminants grown. Thirty nine of seventy (55.7%) bacteria isolated were Gram negative. Most common bacteria were community acquired *Pseudomonas*, *Klebsiella* and *E. coli*. Only 33 (47.1%) bacteria were sensitive to recommended antibiotic prophylaxis of Amoxicillin & Clavulanic acid and Metronidazole while 66 (94.3%) were sensitive to extended antibiotic coverage of Amoxicillin & Clavulanic acid, Amikacin and Metronidazole used at our center. Among Gram-negative bacteria corresponding rates were 9/39 (23%) and 37/39 (94.9%). The corresponding rates for Gram-positive bacteria were 25/31 (80.6%) and 29/31 (93.5%).

Conclusion: A large number of oral cancer patients have their tumours colonized at the time of surgery by Gram-negative bacteria. Extended antibiotic coverage with the addition of an aminoglycoside can cover these bacteria and lead to decreased wound infections.

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POSTER

Dietary Risk Factors of Nasopharyngeal Carcinoma – a Case Control Study of Moroccan Population

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Background: The incidence of nasopharyngeal carcinoma (NPC) is relatively high in Maghreb countries. This cancer is a model of multifactorial oncogenesis, but the role of food as risk factor in etiopathogenesis of this tumour is not negligible. The aim of this study is to identify the association between risk of NPC and some dietary factors in Morocco.

Methods: It is a case-control study including all new cases of NPC (49 cases) hospitalized in the National Institute of Oncology in Rabat between December 2009 and May 2010. Frequency consumption of foods was compared between cases and controls matched for age, sex and residence district (place of residence). A high frequency consumption of a food was defined as consumption once or more by a week. Some traditional foods in Moroccan cooking like Harissa (hot red pepper), Qadid (mutton dried and salted), Khlii (dried meat, salted, spiced cooked and preserved in a mixture of oil and rendered beef fat) and Smen (rancid butter) were analyzed in this study. A conditional logistic regression was used to identify the association between dietary factors and the risk of NPC.

Results: Cases were more likely to have high frequency consumption of Harissa (Odds ratio (OR): 4.05; 95% Confidence Interval (CI): 1.32–12.4), Smen (OR: 4.81; 95% CI: 1.55–14.92) and Black pepper (OR: 3.53; 95% CI: 1.16–10.71), and less frequency consumption of fruits and vegetables (OR: 0.24; 95% CI: 0.08–0.76). There was no significant association between the risk of NPC and the frequency consumption of Qadid, khlii and cooking with olive oil.

Conclusions: Some of these risk factors (Harissa, Black pepper) weren't found in 3 North African studies. This study indicates the involvement of dietary factors, and thus the lifestyle in the development of NPC and

the need of biochemical analysis of food specimens to search for the carcinogenic agents.

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POSTER

Head and Neck Mucosal Malignant Melanoma Expressing C-kit Might Benefit From New Treatment Option

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Background: Mucosal malignant melanoma (MMM) of the head and neck is rare, constituting less than 1% of all malignant melanomas. There is no clear gender predisposition. Most patients are elderly, median age in studies is between 56–65 years. The prognosis is poor; 5-year survival is between 15–40% according to available literature. New treatment is badly needed to improve patient outcome.

Purpose: To investigate the expression of c-kit, Ki-67, overall survival and local control rate for patients with head and neck malignant mucosal melanoma in the Uppsala region, Sweden, 1998–2010.

Material and Methods: Retrospective analyses of the patient files were performed. Seventeen patients were found, fifteen with primary MMM, two with recurrences (with earlier diagnoses) between 1998 and 2010. The immunohistochemistry was performed with 3 µm sections from the operation material and stained with hematoxylin-eosin for c-kit and Ki-67.

Results: All 17 patients had stage III or IV disease. All had primary surgery, four in combination with postoperative radiotherapy. At recurrences all had surgery and 6 patients had radiotherapy as well.

Both 5- and 10-year overall survival was 39%. All patients achieved local control after 3 months, 8 after 1 year and one after 2 years. Nine recurred in median time 9.3 months from treatment cessation, one after 15 months and one after 18.5 years. Nine patients recurred locally and two both locally and with distant metastases.

Fifteen patients expressed c-kit, seven strongly, five intermediately and three weakly. Two were c-kit negative. Thirteen expressed Ki-67 $\geq 30\%$.

Conclusion: This study confirms the poor prognosis for patients with MMM and the low local control rate in this group, regardless of the treatment combination of surgery and radiotherapy. A clear majority of patients in this study express c-kit and have high proliferation in the tumours and metastases as indicated by the Ki-67 rates. Therefore, targeted therapy aimed at the c-kit might present a new treatment option for this group of patients.

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POSTER

Current TNM Staging System in Oral Cancer is Faulty: It Needs Amendment

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Introduction: TNM staging system is the universally accepted system for cancer staging including oral cancer. The basic purpose of staging is to predict prognosis and help in planning the treatment. However, the current TNM system in oral cancer do not truly reflect the burden of disease and so the prognosis & treatment strategy. It over and under stage the T disease and do not give importance to number of involved lymph nodes as in breast or colon cancer. Lymph nodes are most important predictor of survival in oral cancer. We have analyzed our data and presenting the potential deficit and problems of current TNM system.

Methods: It is a retrospective analysis of prospective cancer database of our department from 1st August 2006 to 31st December 2010.

Results: Total 523 patients underwent surgery in this period. The M:F was 2.2:1. The age range from 13 to 89 yrs with mean of 49.8 and median of 50 yrs. The most common sites were buccal, alveolo-buccal and tongue. More than 2/3rd cancer were locally advanced (stage III-IV) by current TNM staging system. With median follow up of 18 months, patients with 4 or more nodes involvement have >80% recurrence rate whereas 1–3 LNs involvement have 28% relapse rate. Patients with ENS showed 38% relapse rate. Involvement of both skin and bone (not staged in conjunction) associated with 37% recurrence rate in comparison to involvement of isolated bone or skin involvement (T4) is associated with around 20% relapse rate. Patients with T4 stage without nodal disease have very low relapse rate (10.7%).

Conclusion: Involvement of 4 or more node, extra nodal spread and combined involvement of skin and bone are poor prognostic factors in oral cancer. They are not placed anywhere in oral cancer TNM staging system. There is need to revise the TNM by including these 3 important factors.