

312 patients diagnosed with BMS were identified (fem = 85%/male = 15%). 62% of the patients complain of pain/burning sensation, 14% xerostomia and 10% dysgeusia. Majority of patients, (76%) refer symptoms affecting the tongue, anterior 1/3 of the hard palate and lower lip. 7% have generalized oral pain. Cancerophobia was found in 10%. 42% of the patients at our first consultation were under psychiatric treatment or psychotropic drugs, and the same percentage were submitted to invasive complementary examinations (biopsy, TC, MRN...), 22.3% had other specialties appointments (INT, gastro...).

In our study, BMS affects mainly women over 45 years of age and a significant diagnostic delay with a correspondent increased number of unnecessary consultation/medications/tests was observed. Early diagnosis is the key to prompt treatment and to increase the quality of life of the patients as well as to reduce associated costs.

The medical community needs more information regarding this condition in order for patients to receive adequate treatment in time.

### B063

#### miRNA profiling expression from oral brushing in OSCC patients

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**Objectives:** microRNAs have recently proposed as potential biomarkers in the early detection of Oral Squamous Cell Carcinomas (OSCCs) by noninvasive methods.

**Aim of the present study** was to analyze the expression of a panel of miRNAs in epithelial cells collected by oral brushing from OSCCs and their respective normal mucosa in distant areas and from regenerative areas after OSCC surgical resection

**Methods:** Oral brushing specimens were collected from: 13 OSCC (group 1a) and their respective normal mucosa in distant areas (group 1b), 12 samples from regenerative areas after OSCC surgical resection (group 2a) and their respective normal mucosa in distant areas (group 2b), 17 lichenoid lesions (group 3) and 24 normal mucosa from healthy controls (group 4). In all different groups the expression levels of miRNAs were evaluated by real time PCR. Seven target were evaluated (i.e. miR-21, miR-375, miR-345, miR-181b, miR146a, miR-649, miR-518b). The miRNA expression levels across groups were assessed by ANOVA statistics or student t test for paired samples

**Results:** miR345, miR146, miR649 e miR518 showed a significant different expression in OSCC group with respect to healthy donors, but a similar and not significant expression with respect to their respective normal mucosa in distant areas (group 1b). Moreover miR146 showed a significantly different expression in regenerative areas after OSCC surgical resection with respect to healthy donors, but not significant difference with respect to their respective normal mucosa in distant areas. No significant differences were found between lichenoid lesions and healthy donors in any miRNAs analyzed.

**Conclusions:** miRNA analysis in epithelial cells collected by oral brushing has demonstrated the presence an altered profile expression not only in OSCC but also in distant areas from OSCC and in regenerative areas after OSCC surgical resection

**Relevance:** Analysis of miRNA expression from oral brushing could be proposed as a non invasive method to study oral mucosa in OSCC patients.

### B064

#### Orofacial aspects, caries experience and salivary parameters in Moebius syndrome

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**Objectives:** The aim of this study was to assess orofacial characteristics, the prevalence of caries, plaque index, and periodontal status, in individuals with Moebius syndrome and controls, and to evaluate salivary characteristics, such as flow, buffering capacity and amylase activity, in order to associate the salivary parameters with oral health.

**Methods:** A total of 90 participants were divided into two groups. The study group was composed of 34 individuals with Moebius syndrome and the control group of 56 age and gender-matched healthy subjects. The researchers assessed caries using the International Caries Detection and Assessment System (ICDAS), periodontal disease (PSR), and plaque (Silness Loe) indexes in both groups. Un-stimulated, stimulated and bilateral parotid saliva were collected and the salivary flow,  $\alpha$ -amylase activity, and buffering capacity were obtained from 30 participants.

**Results:** The occurrence of carious lesions for early-stage caries, i.e., ICDAS scores of cut-off 1 and 2, as well as the occurrence of periodontal disease were significantly higher ( $P > 0.05$ ) among studied group when compared to the control group. Moebius syndrome

individuals presented equivalent plaque index, decreased salivary flow, decreased buffering capacity and higher amylase activity, compared to controls.

**Conclusions:** Our results on salivary flow rate, amylase activity and buffer capacity help to elucidate the high incidence of dental caries in subjects with MS.

**Relevance:** These results provide novel information regarding altered salivary characteristics and dental caries increased risk on individual with Moebius syndrome.

### B065

#### Optical coherence tomography in oral medicine: preliminary in vivo study

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**Objectives:** To introduce an OCT (Optical Coherence Tomography) *in vivo* database of oral diseases, by means of the VivoSight® OCT (Michelson diagnosis) scanner.

**Methods:** This research is a double-blind design study, with two independent evaluators: one oral medicine expert for clinical evaluation and OCT images and a pathologist for histological images examination.

Twenty patients (M 6/F 14; mean age 50 years) with oral mucosal diseases have been selected. After informed consent, clinical inspection was followed by OCT assessment, obtaining the scans (for lesion >4 cm, a 6 mm diameter portion of the area considered for incisional biopsy; for lesion <4 cm, an OCT scan over a 6 mm diameter central area of the entire lesion). Representative sections of lesions were selected by pathologist and photographed under light microscopy. The OCT images and histopathological sections have been compared.

**Results:** Basal histological layers (keratin cell layer, basement membrane and lamina propria) were identified in almost of OCT images (85.0 %); particularly, at both OCT and histological evaluation, a) benign lesions are characterized from acanthosis in the spinous layer (a pronounced white stratum), and b) malignant lesion and ulcers showed clearly the basement membrane break down. Conclusions

In our small group, data showed a concordance OCT and histopathological images and further researches are needed.

**Relevance:** Several studies have investigated the potential validity of OCT use in the assessment of oral lesions but, to date, an *in vivo* database of oral tissues does not exist. Although with limitations of our probe (too bulky for use in the oral cavity), of the sample size and of movement fakes, it is our opinion that OCT could be a non-invasive tool for the diagnosis and follow-up of oral diseases.

### B066

#### The importance of coordination between hematology and dentistry: a retrospective study on the development of BRONJ in patients affected by multiple myeloma

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**Objectives:** Multiple myeloma is a rare tumor, localized predominantly in the bone marrow. Endovenous bisphosphonates are usually administered to patients affected by this disease. As widely reported in the Literature, development of ONJ is a possible side effect. The present 5 year retrospective study was intended to evaluate the efficacy of appropriate dental treatment protocols before starting bisphosphonate therapy, to prevent ONJ development.

**Methods:** 99 patients affected by symptomatic multiple myeloma have been involved in this study. Data concerning visits and dental treatments were outlined using a specific server and consulting clinical reports. AAOMS guidelines were applied for both diagnosis and treatment. 79 patients were visited before Zoledronate administration (group A) and 20 after (group B).

**Results:** All patients required dental treatment: 23.2% underwent restorative therapy, 8% endodontic therapy, 44.4% extractions. Periodontal disease affected 41.4% of the patients. No osteonecrosis was observed in group A, whereas ONJ was found in 5 patients of group B (25%) and 2 patients (10%) presented osteosclerotic areas in phase of assessment [OR 0.026 (CI 0,0027 to 0,2454)].

**Conclusions:** There are no data regarding the exact prevalence of BRONJ in the Literature, but according to our data, the risk is widely reduced by performing a dental visit before treatment with BFs. RCTs and a long-time follow-up are needed to confirm this statement.

**Relevance:** Within the limits of this retrospective study we point out that diagnosis and dental treatment before starting the treatment with endovenous bisphosphonates significantly reduces the incidence of ONJ.