and enzymes, which controls the growth of oral microorganisms and maintains a balanced oral microflora. Oral cavity provides a multivariant environment to habitate over 700 bacteria and fungi. Besides causing caries and periodontitis, many systemic diseases have been correlated to oral microbes, including cancers, HIV, DM and pericarditis. We hypothesized that lacking saliva will alter the composition of oral microbiota.

Findings: To study the changes of oral microbiota, ten xerostomia patients, who were not in any active treatments, and 4 healthy normal volunteers were recruited. Gingival plaques were collected following the standard protocol. Gingival plaques were collected, placed in PowerBead Tube (Qiagen) and stored in -800C until further analysis. Microbiota were detected using bacterial 16S ribosomal RNA and analyzed based on the levels of Phylum and Class. At phylum level, the mean presence of Bacteroidetes in xerostomia and normal subjects were 16.2±1.0% and 28.3±1.7%, respectively (p=0.03, t-test). Mean presence of Firmicutes phylum in xerostomia and normal subjects were 15.1±1.5% and 3.2±0.8%, respectively (p=0.03, t-test). In addition, mean presence of Firmicutes bacilli class in xerostomia and normal subjects were 6.3±0.7% and 1.1±0.5%, respectively (p=0.05, t-test).

Conclusions: Significant differences in oral microbiota were observed between xerostomia and normal subjects. More samples are needed to verify the current results and to apply the oral microbiota in the diagnosis of xerostomia.

MASPIN EXPRESSION IN PLEOMOPHIC ADENOMA, POLYMORPHOUS LOW GRADE ADENOCARCINOMA AND ADENOCYSTIC ADENOCARCINOMA OF SALIVARY GLANDS SEEN AT THE LAGOS UNIVERSITY TEACHING HOSPITAL, LAGOS, NIGERIA.

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Objectives: To immunostain with Maspin antibody, formalin fixed, paraffin embedded tissues of 41 samples of Pleomorphic Salivary Adenoma [PSA], 10 samples of Polymorphous Low-Grade Adenocarcinoma [PLGA] and 34 samples of Adenoid Cystic Carcinoma [AdCC].

To quantitatively assess Maspin expression in each of the three (3) Salivary Gland Tumours (SGTs) by combining immunostaining intensity scores with scores of proportion of positively stained cells (Total mean scores) in each, using the method described by Reiner et al 1990.

To analyze data using Chi square, Fisher's Exact tests and analysis of variance to compare total mean scores of maspin expression among the three (3) SGTs, the statistical significance level being set at $p < 0.05$.

Findings: PSA had the greatest proportion of Maspin immunopositivity (73.2%), followed by PLGA (40.0%) and AdCC (35.2%). Mean total Maspin score of PSA (3.5±2.4) was statistically significantly higher than that of PLGA (1.2±1.8) [p=0.005]. and that of AdCC (1.0±1.5) [p<0.0001].

Conclusion: In this study, there was decreasing expression of Maspin from PSA to PLGA to AdCC, which is consistent with established increased order of clinical aggression of these tumors. It is suggested that Maspin expression could be a useful adjunct diagnostic tool to discriminate between PSA, PLGA and AdCC.

ANALYSIS OF SALIVARY GLUTATHIONE AND SELENIUM IN HIGH RISK AND ORAL CANCER PATIENTS SEEN AT LAGOS UNIVERSITY TEACHING HOSPITAL, LAGOS, NIGERIA.

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Objectives: To select three study groups consisting of 20 oral squamous cell carcinoma subjects(Group 1), 20 high risk for oral squamous cell carcinoma subjects (Group 2) and 20 healthy controls (Group 3).

To collect saliva samples from each subject and analyze for salivary concentration level of glutathione using enzymatic recycling assay and salivary selenium concentration level using atomic absorption spectrophotometry.

To analyze data on salivary glutathione and selenium levels in each group and compare findings within and between groups using statistical method of Analysis of Variance (ANOVA)

Findings: The mean salivary glutathione concentration in healthy control group (5.618±0.5213μM) was higher than the high risk group (5.273± 0.2340μM) and oral cancer group (5.047± 0.5115μM) The difference between groups was statistically significant ($p = 0.001$). However, the salivary selenium was higher in the oral cancer group (0.0167±0.0083 mg/dl) compared to the high risk (0.0148± 0.0071mg/dl) and healthy control (0.0138± 0.0093 mg/dl) but not statistically significant (p= 0.5414).

Conclusion: Salivary glutathione level could be a predictor of risk of oral cancer and could therefore serve as a non invasive modality in the early detection of oral cancer.

CONGENITAL-INFANTILE SPINDLE CELL AND SCLEROSING RHABDOMYOSARCOMAS: UNIQUE VARIANTS DEFINED BY MOLECULAR FEATURES.

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Objectives: Congenital-infantile spindle cell (SpRMS) and sclerosing (ScRMS) rhabdomyosarcomas with tumor-defining molecular features in the head and neck region will be described. These tumors may be confused with more commonly occurring spindle cell tumors (myofibroma, infantile fibrosarcoma) in infants. NCOA2 and VGLL2 rearrangements, and MyoD1 mutations are characteristically identified in SpRMS and ScRMS. NCOA2 and VGLL2 rearrangements are more common in SpRMS, while MyoD1 mutations are more common with ScRMS. NCOA2 or VGLL2 RMS tend to have favorable outcomes, but MyoD1 mutation RMS may have aggressive disease with dismal outcome.

Findings: 5 neonates and infants were diagnosed with head and neck SpRMS (n=3, 2 males, 1 female, ages 2 weeks to 6 months, 2 maxillary sinus, 1 neck) and ScRMS (n=2, 2 males, ages 5 weeks and 8 months, 1 perinasal, 1 mandible). SpRMS were characterized by malignant spindle cells that were compactly apposed, and closely resembled infantile fibrosarcoma. ScRMS were composed of small round cells in a prominent sclerotic matrix. Both SpRMS and ScRMS lacked rhabdomyoblastic differentiation on H&E staining. Immunostaining with myogenic antibodies (Desmin, Myogenin, MyoD1) identified rhabdomyoblastic origin. Electron microscopy (N=4) showed rudimentary myofilaments in 3 cases