Holm-Bonferroni method to account for multiple comparisons showed adjusted p-values of 0.0003 (HG versus CM), 0.0018 (LG versus CM) and 0.0196 (HG versus low LG) among three groups.

Conclusion: p16 expression was statistically-significantly greater in LGD and HGD lesions compared to CM, with a trend of greater expression being associated with higher grade of dysplasia.

DETERMINING THE INFLAMMATORY RESPONSE IN ORAL SQUAMOUS CELL CARCINOMA BY SALIVA ANALYSIS. *DR. CATHERINE LALIBERTE, MS. DENISE LOPEZ EYMAEL, DR. GRACE BRADLEY, DR. MARCO MAGALHAES. UNIVERSITY OF TORONTO, FACULTY OF DENTISTRY*

Objectives: Oral squamous cell carcinoma (OSCC) often shows a pronounced inflammatory infiltrate and there is accumulating evidence that this inflammatory infiltrate plays an active role in tumor development and progression. Analyses of saliva may provide a non-invasive approach to study the inflammatory response in OSCC. Our aim is to develop a protocol for collection and analysis of saliva in OSCC patients and to use it to characterize both the inflammatory cell profile and cytokine profile in the saliva of patients across all stages of OSCC.

Methods: 42 patients undergoing treatment for OSCC at the Toronto Odette Cancer Centre (stages I to IV), 25 healthy patients, and 9 patients with periodontitis were enrolled. Saliva samples were obtained by rinsing with 3 ml of saline for 30 sec. The samples were kept on ice and stabilized with protease inhibitor until filtration using a 20 μm membrane filter. Cell pellets were separated by centrifugation and supernatants were analyzed using a BioFLex 30-Plex inflammatory panel (BioRad) and Luminex® detection technology. Cell pellets were fixed in 4% PFA and analyzed using multichannel flow cytometry. The fluorescent markers included CD45, CD66b, CD3, CD4, CD8, CD25, CD56, CD68, CD138, Siglec8, PD1 and PDL1.

Findings: Distinctive, reproducible changes were observed in salivary cytokines and inflammatory cell profile of patients with OSCC compared to control and periodontal disease patients. Using our protocol, we were able to describe specific patterns of inflammation for oral cancer, including altered CD4/CD8 ratio and marked increase in IL-1b, IL-6 and TNF-a.

Conclusion: We created a reproducible protocol to collect saliva and perform high-throughput analysis of inflammatory profile of saliva. This technology can be used to develop non-invasive, early detection/prognostic tests for OSCC, new adjuvant therapies and new techniques to monitor response to treatment.

CHRONIC ULCERATIVE STOMATITIS: A LICHENOID OR VESICULOBULLOUS DISEASE?. *DR. REKHA REDDY, DR. SARAH FITZPATRICK, DR. LIYA DAVIDOVA, DR. INDRANEEL BHATTACHARYYA, DR. DONALD COHEN, DR. MOHAMMED ISLAM. UNIVERSITY OF FLORIDA*

Objectives: Chronic ulcerative stomatitis (CUS) is a rare disease of unknown etiology. The histopathologic features are similar to lichen planus, but direct immunofluorescence (DIF) studies show characteristic presence of IgG in basal and parabasal epithelial nuclei.This study will review a case series of CUS and assess if the entity is more similar to lichen planus or vesiculobullous diseases.

Methods: An IRB-approved retrospective search of CUS was performed within the archives of the UF Oral Pathology Biopsy Service between 2007 and 2017.

Findings: Seventeen cases, all female, were included. The median age was 64 years (range 47-83 years). Eleven patients were Caucasian, one was Asian, and one was African-American. Race was not specified in four cases. Buccal mucosa (8/17) was the most common location, followed by gingiva (7/17), buccal vestibule (1/17), and gingiva/buccal mucosa (1/17). The most common clinical presentations were pain/burning (13/17), erythema (13/17), whiteness (11/17), ulcerations/erosions (5/17), blisters/positive Nikolsky's sign (5/17), sloughing (2/17), striae (2/17), and recession (1/17). The clinical impression was lichen planus in 12 cases. Of these twelve cases, 4 included vesiculobullous disease as a differential. Four cases did not include a clinical impression and one listed erythema multiforme as the clinical impression. All cases were confirmed with DIF testing that showed a characteristic speckled pattern of IgG in basal and parabasal cells. Eleven of these cases were also positive for fibrinogen and two cases were faintly positive for C3. None of the cases were positive for IgA or IgM.

Conclusion: Since CUS has overlapping clinical, histological, and immunofluorescence features with lichen planus and vesiculobullous diseases, clinicians and pathologists should consider this unusual, but significant, entity whenever oral ulcerative diseases with mixed features are encountered.

IMMUNOHISTOCHEMICAL ANALYSIS OF INFLAMMATORY RESPONSE IN VERRUCOUS CARCINOMA COMPARED TO CONVENTIONAL ORAL SQUAMOUS CELL CARCINOMA. *DR. LIYA DAVIDOVA[A], DR. REKHA REDDY[B], DR. SARAH FITZPATRICK[A], DR. INDRANEEL BHATTACHARYYA[A], DR. DONALD COHEN[A], DR. MOHAMMED ISLAM[A]. [A] UNIVERSITY OF FLORIDA, [B] UNIVERSITY OF FLO*

Introduction: Studies on inflammatory response to oral squamous cell carcinoma (OSCC) generally do not include verrucous carcinoma (VC), which typically carries a far better prognosis. While high CD8 expression is associated with favorable outcome in head and neck cancers, the role of CD4+ lymphocytes remains controversial. B cell involvement has been suggested to enhance T cell response. The aim of this study is to evaluate differences in inflammatory infiltrate immunohistochemistry (IHC) between OSCC and VC.

Materials and Methods: The archives of the UF College of Dentistry oral pathology biopsy service were retrospectively searched for OSCC and VC. Slides were reviewed and 10 cases of VC, 10 cases of well differentiated SCC (SCC-WD), and 10 cases of poorly differentiated SCC (SCC-PD) were selected for testing. IHC staining for CD4, CD8, and CD20 was performed for 30 selected cases. The results were assessed via Aperio Image Scope positive pixel count assessment and analyzed statistically using ANOVA comparison of means with significance measured at p<0.05.

Results: A total of 90 scanned slides were evaluated. Analysis of the results showed no significant difference in mean scores of CD8 or CD20 across groups; however, there was significant difference in CD4 mean scores, with increasing scores noted