

Oral presentation

1

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Oral epithelial atypical changes in apparently healthy oral mucosa exposed to smoking, alcohol, peppers and hot meals, using the AgNOR and Papanicolaou staining techniques.

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To evaluate cytological atypical changes in apparently healthy oral mucosa exposed to smoking, alcohol, hot meals, and peppers using the AgNOR and Papanicolaou methods. A total of 180 individuals were evaluated, of which 60 were smokers, 34 were alcohol users, 52 were habitual peppers and hot meal (exposed) consumers, 24 were non-exposed, and 10 were patients with Oral Squamous Cell Carcinoma (OSCC), as an internal control. Cytological materials were obtained by brushing of buccal mucosa, on the border of the tongue and on the floor of the mouth, and participants underwent the Papanicolaou test for cytological changes and AgNOR staining for evaluation of the mean number of AgNOR dots per nucleus. SPSS program was used to perform the Pearson chi-square test. The 95% confidence level, Odds Ratio (OR), and the 95% Confidence Intervals (CI) were used. The features of cytological atypia were verified among 10 individuals, including 5 smokers, 2 alcohol users, 2 hot meals and peppers consumers, and one non-exposed. For atypia among tobacco smokers, the adjusted Odds Ratio (OR) and the 95% CI were found to be 2 (0.246-16.24). Increased keratinization was detected among 27 (45%) of the smokers ($P < 0.0001$), 17 (32.7%) of the pepper and hot meals consumers ($P < 0.005$), 4 (11.8%) of the alcohol consumers, and among 2 (3.7%) of the non-exposed group. Statistical analyses revealed a greater mean number of AgNORs per nucleus in smokers (3.68) followed by (2.82) alcohol consumers, compared to the habitual peppers and hot meal consumers (2.28) and the non-exposed group (2.00). What's more, 80% of the smears with cytological atypia were identified with 6 +/- 2 AgNOR mean count. The increase of the variables suggests that the evaluation of epithelial atypical changes in individuals exposed to smoking and alcohol carcinogens may be a useful screening tool. While hot meals and peppers did not seem to be a risk for oral mucosal proliferation, they increased the potency of keratinization and infection. *Diagn. Cytopathol.* 2010. (c) 2009 Wiley-Liss, Inc.

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