

**OI0375 MULTIFACTORIAL RISK INDEX FOR ORAL CANCER** Eduardo Piemonte, J.P. Lazos, M. Brunotto, P. Belardinelli, D.G. Secchi, G. Castillo, A. Talavera, H.E. Lanfranchi, Department of Oral Pathology, School of Dentistry, National University of Cordoba, Cordoba, Argentina

**Objectives:** To categorize oral cancer risk through a multifactorial risk index.

**Methods:** Groups of 53 patients with oral cancer and 100 controls who were attended at the Dentistry College (Córdoba, Argentina) between 2009 and 2013 were examined by trained professionals. Age, gender, body mass index, smoking, involuntary smoking, alcohol consumption, hot beverages, chronic mechanical irritation of the oral mucosa, oral potentially malignant disorders, oral candidiasis, human papillomavirus, tooth loss, ill-fitting dentures, diet, environmental carcinogens, arsenic in drinking water, and cancer family history were recorded. Model 1 (M1) was built with statistically significant variables, Model 2 (M2) was built with statistically significant variables not acquired through clinical examination; both were analyzed with a  $\chi^2$  test. Model 3 (M3) was built with statistically significant variables through multivariate logistic regression analysis. For each variable a value of a whole number corresponding to the OR was assigned. Also, for each individual a total value was obtained by the sum of registered variables. The sample was split into 2 groups according to the median of total value, which were analyzed with a  $\chi^2$  test.

**Results:** In all 3 models (M1, M2, and M3), to have more points was statistically associated with oral cancer risk: M1 = OR, 50; 95% CI, 14.3-174.5;  $P < .0001$ ; M2 = OR, 3.17; 95% CI, 1.57-6.41;  $P < .001$ ; and M3 = OR, 28.16; 95% CI, 11.25-70.50;  $P < .0001$ . Sensitivity, specificity, likelihood ratio, and attributable risk for M1 were 0.94%, 0.75%, 2%, and 94%; for M2, 0.68%, 0.6%, 0.9%, and 53%; and for M3, 0.73%, 0.91%, 4.33%, and 76%, respectively.

**Conclusions:** Including all variables, the multifactorial risk index obtained by means of univariate analysis allowed a better risk assessment with more sensibility than the other models. It is eligible in oral cancer prevention and monitoring programs, and should be carried out by a dentist properly trained in oral medicine.