

# 6<sup>th</sup> Indian Dental Congress

November 23-25, 2015 Bengaluru, India

## Role of angiogenesis in oral squamous cell carcinoma development and metastasis

Adel Bouguezzi

University Dental Clinic of Monastir ,TUNISIA

**Aim:** The aim of this study was to compare two endothelial markers (CD31 and CD34) and to clarify the role of angiogenesis in OSCC development and metastasis.

**Material and methods:** We have performed a retrospective analysis on 50 human OSCC bioptic specimens, using immunohistochemical analysis with anti CD31 and anti CD34. Mean values of these two antibodies were compared, as well as possible correlations between peritumoral microvessel density and clinico pathological parametres were evaluated, such as age, sex, tumor localization and size, lymph node status and histological grading.

**Results:** The peritumoral MVD count per high power field (1 mm<sup>2</sup>) in all 50 tumors detected by antibodies CD31 and CD34 ranged 4 to 27 and 13 to 58, respectively, with means of 13.74 and 22.75, respectively. The peritumoral MVD determined using CD34 were significantly associated with age ( $P=0.027$ ), the peritumoral MVD using CD34 and CD31 immunostaining of OSCC with a lymph node metastasis was higher than with a negative node status with means of 15.04 and 12.55 respectively for the CD31, 24.61 and 21.44 respectively for the CD34. However, no statistical correlation was observed between peritumoral microvessel density and other clinical parametres such as sex, tumor site, size, lymph node status and histological differentiation.

**Conclusion:** According to our study, tumor angiogenesis and the density of newly formed vessels are of potential prognostic relevance in the assessment of OSCC, and we showed that the endothelial marker CD34 was better in the assessment of tumor vascularization of OSCCs than CD31.

[dr-adel@live.fr](mailto:dr-adel@live.fr)

## Quantitative and Qualitative analysis of sugars in carbonated drinks and their impact on teeth

Dhafi Al-Mutari

Egypt

**Objective:** The contemporary changes in the diet pattern especially the surge in the consumption of carbonated beverages have its impact on the systemic and dental health among young adults of Saudi Arabia. The pH and the sugars in the carbonated drinks are associated with dental caries and erosion. The study aimed to determine the quantity and quality of sugars and the pH in the commonly available carbonated drinks. The amount of total sugars, glucose, fructose, sucrose, artificial sweeteners were estimated and compared to their labelled values. It also reviews the implications of these drinks on teeth.

**Methods:** Ten brands of carbonated drinks were obtained from the local supermarkets of Jazan, Saudi Arabia. Their pH was determined using a pH meter. The quantity of total sugar, glucose, fructose, sucrose and artificial sweeteners were estimated based on High performance liquid chromatography using a Dionex ICS 5000 ion chromatography at Food and Drug Authority, Saudi Arabia.

**Results:** The pH of these drinks varies from 2.46 to 3.20 much below the critical value for enamel dissolution. The total sugar content in this sample ranged from 11.29 to 16.46 with energy drinks such as Bugzy and Bison having highest sugar content but comparatively less sucrose. In contrast, Seven Up had high sucrose compared to their glucose and fructose level but their total sugar concentration was least. Mild positive variation was observed for the sugar concentration compared to their labelled values in most of these samples. Diet Pepsi had artificial sweeteners like acesulfame K, saccharin and aspartame within acceptable limits but no sugars.

**Conclusions:** The pH, quality and quantity of sugars in the carbonated drinks prove to be deleterious to dental health. This calls for an urgent need to create public awareness about the health implications of consuming these carbonated beverages. Educational and behavioural research is needed to determine strategies to moderate the frequency of intake of carbonated beverages.

[dhafialonny@hotmail.com](mailto:dhafialonny@hotmail.com)