

## ALTERATION OF SALIVARY AMYLASE CONCENTRATION IN SUBMANDIBULAR GLAND OF WISTAR RATS BY THE EFFECT OF BEVACIZUMAB, 5-FLUOROURACIL AND OXALIPLATIN.

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ID 3642966

**Objectives:** The aim of this study was to determine the concentration of salivary amylase in the submandibular gland (SMG) of Wistar rats treated with Bevacizumab, 5-Fluorouracil and Oxaliplatin. **Material and Methods:** Forty-eight three-month-old male Wistar rats with body weight (bw) 300/350 grams were used divided into: G1 (control, n: 8), G2 (5-fluorouracil+Leucovorin Calcium, n:8), G3 (Bevacizumab, n:8), G4 (Oxaliplatin, n:8), G5 (5-Fluorouracil+Leucovorin Calcium+ Bevacizumab+Oxaliplatin, n:8), G6 (paired feeding, no drug, n:8). They received ad libitum feeding, except G6, which received the average daily intake of the G5 animals. Doses applied intraperitoneally: G2 (20mg and 10 mg/kg bw for 5 consecutive days), G3(10 mg/kg bw on days 1 and 15), G4 (8 mg/kg bw on days 1 and 15) and G5 (drugs of G2, G3 and G4 were administered). The animals were fasted, anesthetized, SMG were removed and sacrificed. Salivary amylase concentration was measured by spectrophotometric method. Comparison between groups was performed by Analysis of Variance- Tukey test a posteriori, setting p value <0.05 for statistical significance. Protocol approved CICUAL: FCM - FO - UNC. **Results:** G1 showed a significantly higher salivary amylase concentration in comparison to other groups ( $137.9 \pm 4.64$  U/gram of gland) and G2, G4 and G5 had significantly lower average amylase concentration ( $60.95 \pm 4.64$ ,  $26.17 \pm 4.64$  and  $10.77 \pm 4.64$  U/gram of gland respectively) in relation to G1, G3 and G6. ( $p=0,0001$ ). **Conclusion:** The combined administration of cytostatics and monoclonal antibodies would alter the functional activity of SMG due to the deleterious action of cytostatic drugs, not due to Bevacizumab. Although the lower intake affected the amylase concentration compared to control group, the effect was significantly greater due to the action of the oncological drugs used in the present animal model. Further study on parotid gland will be carried out.