

BEHAVIOR OF ORGANIC IRON IN INDIVIDUALS RECEIVING DIET WITH AND WITHOUT POWDERED MEAT

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OBJECTIVE: To evaluate the behavior of organic iron in individuals in postoperative period receiving diet with and without powdered meat. **METHODS:** individuals submitted to alveolar bone graft, of both genders, aged 8 to 19 years, were randomized in groups G1 (standard diet) or G2 (standard diet + powdered meat). The individuals were submitted to anthropometric, dietary and laboratory evaluations at the day before surgery (M1) and on hospital discharge (M2). Non-parametric analyses demonstrated by median were used, considering statistical significance as $p < 0.05$. The bilateral Fisher exact test, corrected Yates chi-square, non-parametric Wilcoxon test and Mann-Whitney test were used. The study was approved by the Institutional Review Board of HRAC. **RESULTS:** G1= 42 individuals; G2= 50 individuals. Mean age 12.7 ± 5.7 years (G1) and 13.2 ± 1.4 years (G2) ($p = 0.309$). Mean time of hospitalization 4.02 days (G1) and 4.12 days (G2). Anthropometrics: significant reduction was observed in the BMI in G1 and G2 ($p < 0.001$); for AC and BSF in G1 ($p < 0.001$); for TSF in G2. Discordant data of bioimpedanciometry were observed, which revealed significant increase in body fat and resistance and of the phase angle for G2 ($p < 0.001$), suggesting improved quality of the cell membrane. Dietary: greater ingestion for G2 ($p < 0.001$) after the first day postoperatively. Laboratory: G2 presented significantly higher values ($p < 0.001$) in all laboratory indicators corresponding to iron metabolism. Conversely, individuals in G1 presented significant reduction of all values analyzed ($p < 0.001$). **CONCLUSIONS:** The presence of powdered meat in the diet maintained and even increased the body iron deposits, even in situations that are known to cause their reduction. The G2 presented smaller impact from the surgical

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