

653. (89) RESORBED ALVEOLAR BONE RECOVERY BY TREATMENT WITH PTH 1-34 AT LOW DOSES IN EXPERIMENTAL PERIODONTITIS

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We compared two low doses of PTH for the recovery of alveolar bone loss by experimental periodontitis. Periodontitis was induced in 18 female Wistar rats (221±15g); 96 hours later, rats were divided and treated by injection into the gingival sulcus: G1: saline solution (SS), G2 and G3 with 0.2 or 0.4 µg PTH 1-34/Kg/3 times a week. A control group (C) (n=5) without ligature was injected with SS. After 21 days, serum was extracted to determine CrossLapp (CTX), osteocalcin (OCN) and PTH by ELISA. Animals were euthanized and hemimandibles (HM) and tibias (T) were extracted for histomorphometry (percent bone volume: BV/TB% and periodontal space height: PSA). Results (C, G1, G2 y G3 respectively. Mean±SD, different letters indicate p<0.05): BV/TV% T 45.7±5.4; 41.3±5.4; 46.6±2.7; 44.1±3.0. BV/TV% HM 486±5.6^b; 36.4±4.4^a; 43.8±1.7^{ab}; 48.7±6.5^b. AEP (µm) 168.3±24.2^a; 634.2±125.3^c; 686.6±71.7^c; 354.1±43.6^b. CTX (pg/mL) 47.0±15.3^a; 71.7±15.7^b; 45.4±10.7^a; 42.8±9.8^a. OCN (ng/mL) 2.4±0.0^a; 2.7±0.0^c; 2.5±0.1^a; 2.6±0.0^b. PTH (pg/mL) 17.7±0.5; 16.7±1.2; 13.5±3.9; 13.7±3.5. Tibia BV/TV% did not evidence systemic effects by PTH treatment. Periodontitis increased bone remodeling while PTH treatment decreased bone resorption. G3 showed an increase in OCN levels without changes in CTX levels along with a significant improvement in hemimandible BV/TV% and a high recovery of AEP when compared to C group. Conversely, G1 cannot reach the values of C. Levels of PTH did not change with periodontitis induction or pharmacological treatment. Conclusions: intermittent administration of PTH in the high low dose tested decreased the progression of periodontal disease without inducing systemic effects suggesting an additional successful treatment for periodontitis. Grants of CONICET and UNRN.