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Abstract

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The aim of the present work was to evaluate the effect of a selective cyclooxygenase-2 (COX-2) inhibitor (meloxicam) on the alveolar bone loss progression in experimentally induced periodontitis. Forty (40) Wistar rats were separated into 8 experimental groups (n = 5). Cotton ligatures were placed at the gingival margin level of the lower right first molars of some rats. Four groups were treated for 5 or 15 days with an oral dose of 15 mg/kg of body weight/day of the selective COX-2 inhibitor. The other groups were used as positive control (sham) or negative control in each experimental period. Standardized digital radiographs were taken after sacrifice at 5 and 15 days to measure the amount of bone loss at the mesial root surface of the first molar tooth in each rat. The treatment with meloxicam did not induce weight alteration or other visible systemic manifestations. One way analysis of variance (ANOVA) indicated that groups treated with meloxicam, after 5 days, had significantly less alveolar bone loss ($p < 0.05$) when compared with control groups. On the other hand, no significant differences in bone loss were observed after 15 days of treatment with meloxicam. These data provide evidence that systemic therapy with meloxicam can modify the progression of experimentally induced periodontitis in rats during the initial experimental period.

Keywords : Alveolar bone loss; Anti-inflammatory agents, non-steroidal; Cyclooxygenase inhibitors; Periodontitis; Radiography, dental.

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