



Anti-Inflammatory Effect of Diclofenac Diethylammonium Gel on Acute Phase of Ligature Induced Periodontitis in Rats

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SUMMARY. This study aimed to evaluate the effect of a diclofenac diethylammonium gel 10 mg/g (DD) on acute phase of ligature induced periodontitis model in rats. Experimental Periodontitis Disease (EPD) was induced in 30 Wistar rats subjected to ligature placement on left molars. Animals were treated with (DD), immediately after (EPD) induction. Saline-based gel (SG) was utilized as negative control and DD gel 10 mg/g was the tested substance. Animals were randomly assigned into the groups. The periodontium and the surrounding gingiva were examined at histopathology, as well as the neutrophil influx into the gingiva was assayed using myeloperoxidase activity levels by ELISA method. DD treatment reduced tissue lesion at histopathology coupled to decreased myeloperoxidase activity production in gingival tissue when compared to the saline gel control group ($p < 0.05$). The DD gel was able to provide a significant myeloperoxidase decreasing in gingiva tissue confirming to be effective in reducing gingival inflammation in this model.

KEY WORDS: Diclofenac diethylammonium, Inflammation, Periodontitis, rats.

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