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The effect of acetaminophen on tooth movement in rabbits

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ABSTRACT

Orthodontic patients have reported the use of analgesics during therapy. However, common anti-inflammatory analgesics, such as aspirin and ibuprofen, have been shown to slow the rate of tooth movement. Acetaminophen, another common analgesic, does not possess anti-inflammatory properties. The effect of acetaminophen on tooth movement was studied using New Zealand white rabbits. Experimental animals were matched to a control animal of the same sex and weight. Under anesthesia, springs were ligated between the lower first molar and incisor, resulting in approximation of these teeth. Under blinded conditions, seven of the rabbits received 1000 mgs of acetaminophen daily. Seven control animals received water. The animals were sacrificed after 21 days. The movement of incisors and molars was measured. Results showed considerable movement within both the experimental and control groups, but no significant difference in tooth movement between them. Acetaminophen has no effect on the rate of tooth movement in rabbits undergoing orthodontic treatment.