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No Antibiotics for Tooth Extractions in Diabetic Patients

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Diabetes is a disease associated with increased surgical complications and deficient tissue repair. However, recent publications claim that non-compensated diabetic patients have not increased risk for postoperative complications in simple tooth extractions. The tissue repair is a complex sequence of cellular and molecular events that act in concert to restore the structures damaged by trauma and disease and is critical to the maintenance of homeostasis of living organisms. All surgical procedures must be based on the best local and systemic health conditions for the repair processes to restore the integrity and prior tissue architecture [1].

Hyperglycemia as a result of Diabetes Mellitus (DM) is related to changes in bone formation, delayed fracture healing and tissue repair deficient. These complications have in common the increased intracellular oxidative stress and overproduction of reactive oxygen species (Reactive Oxygen Species - ROS) [2]. Four basic mechanisms are responsible for an increased production of ROS. he first is the increase of polyol pathway flux; characterized by the second increase in the advanced glycosylation end products (advanced glycation end-products, AGEs); based on the third activation of protein kinase C isoforms (protein kinase C, PKC) and finally the increase of hexosamine athway (hexosamine biosynthesis pathway - BPH) [3,4]. There is a consensus among authors that the repair of dental alveoli in hyperglycemia conditions presents a deficit at all stages of tissue repair. However, clinically it is observed that despite the delay in wound repair, there is no increased risk of postoperative complications like alveolitis, postsurgical infections or exposure of the bone tissue, which is manifested as pain, redness and fever [5]. Thus, there is no consensus in the literature to recommend the use of antibiotics in order to prevent infections in diabetic patients undergoing simple extractions; the dentist should monitor the progress of patient throughout the postoperative period [6].

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