

# **DEVELOPMENT OF AN INNOVATIVE SCAFFOLD MADE FROM DECELLULARIZED CANINE BONE FOR USE IN VETERINARY DENTISTRY**

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In canine veterinary medicine in the field of dentistry, doctors often encounter problems with bone defects. A common reason is trauma, but they can also arise from the formation of cysts. After tooth extraction, a defect in bone tissue is created, filling such a defect with a restorative explant significantly improves the degree of regeneration of the alveolar area. Our goal was to develop a method for decellularizing canine bone for use as allogeneic filling material. Usually, hydroxyapatite is used in the treatment of bone defects in the oral cavity, which is not always the optimal solution for bone healing. This is due to its brittleness, low resistance to stretching, fractures and unpredictable adaptability. Decellularized bone has been cleared of cells, preserving only its mineral and chemical composition. We have developed an effective method of cleaning the bone so that the result is an immunologically inert bone composite. We determined the composition and concentration of reagents, and their duration of action to achieve desired results. The research has allowed us to develop a decellularization method with satisfactory results. We hope that the developed product can be used for bone replacement in veterinary dentistry, especially in the extraction of canines.

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