

Biometric evaluation of the rhBMP-2 effect in obtain a vertical gain in xenogic bone grafts fixed in rabbit's tibia

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The human recombinant type 2 (rhBMP-2 Infuse®) is a bone morphogenetic protein capable of assisting considerably in cases of bone graft. This study aimed to evaluate the vertical bone growth of block-shaped xenogenous grafts fixed to the tibia of rabbits with and without rhBMP-2. We used 20 New Zealand female rabbits, weighing between 3.5 and 4 kg, which were divided into four groups: blocks without membranes associated with rhBMP-2, blocks with membranes associated with rhBMP-2, blocks without membranes and not associated with rhBMP-2, and blocks with membranes not associated with rhBMP-2. Two rectangular blocks were fixed to each tibia with screws at the same level as the surface of the blocks, and thereafter measured in millimeters using a pachymeter. After three months, the animals were euthanized and the blocks were again measured. Data were analyzed using Kruskal-Wallis/Tukey ($\alpha = 0,05$). Statistical analysis revealed that the interaction between the factors rhBMP-2 and Membrane was not significant ($p = 0.114$). Analyzing the factors individually, the groups without membrane (2.38 ± 1.08) presented a mean bone growth greater than the groups with membrane (1.72 ± 1.51). We came to the conclusion that the use of rhBMP-2 resulted in a greater vertical bone growth, and it is an option for the treatment of atrophic areas.

Biography

Pontual has completed his MS from the University of São Paulo and Ph.D. from the Federal University of Santa Catarina, both in Brazil. He is Associated Professor and Oral Implantology Program Coordinator at the UFES, Brazil and effective member of the scientific editing board of two Brazilian Journals of Implant Dentistry. He has Author and coauthored several articles published in various peered journals and has lectured extensively since 1998. Author of the book "Platelech Rich Plasma and Growth Factors in Implant Dentistry", Santos Ed. 2002

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