Bone regeneration in critical defect treated with inorganic bovine bone matrix with two different carriers [Regeneración ósea en defectos críticos tratados con matriz ósea bovina inorgánica aplicada con dos diferentes vehículos]

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In bone reconstruction has been used different bioamterials; bovine bone matrix has been studied and nowadays new research analyses the capacity for bone regeneration. The aim of this research was to evaluate the bone reparation in critical defects on skull of dog filled with inorganic bovine bone matrix carried by carboxi-methyl-celulose. Was design an experimental research with 6 dog; on parietal bone was realized a 8mm diameter defect with a trephine and the defect was filled by particle autogenous bone (group I), inorganic bovine bone matrix carried with saline solution (0,9%) (group II) and inorganic bovine bone matrix carried with carboxi-methyl-celulose. Was realized the sacrifice of animals in a third and sixth week and was performed the radiographic image and the histological study with hemaotoxilin-eusin in a routine technique. Non infection was observed in any of sample. In the autogenous bone graft was observed an adequately bone formation in the third and sixth week analyses and was related to radiographic image; for group II was observed some bone formation and presence of bovine bone particles and for group III was observed inflammatory cells for two period of analyses with a low level of bone formation. The radiographic analyses show sign of bone formation but histological analyses show only permanence of bovine bone particles confounding the radiograph results. Is conclude that bovine bone inorganic matrix in COMPATIBLE con bone tissue and can contributed to bone formation although the use of carboxi-methylcelulose

can be an obstacle for bone regeneration.

Bone

Bovine bone

Osseous graft