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Implants

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NEW BONE FORMATION IN THE SPACE UNDER THE LIFTED SINUS MEMBRANE IN THE SINUS LIFT SURGERY FOR IMPLANTS

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This is an animal experiment of sinus lift surgery to investigate from where new bone comes, which there is a limit to new bone formation or not, how much volume new bone can achieve and the influence of grafting materials for new bone formation in the space under the lifted sinus membrane. A sinus lift surgery with placement of implants was performed in both of the right and left frontal sinus for 20 dogs. They were divided into two groups as A and B. In group A, the spaces in the right frontal sinuses were left empty and in the left were filled by bovine collagen sponge for each dog. In group B, Boneject TM granules (bovine bone ceramic granules with collagen gel) were filled in the right hand space and bovine bone ceramic granules (TBC) in the left. Histopathological observation was done at intervals of one week, one month, two months, three months and six months after surgeries. The results revealed that new bone formed from the sinus wall bone and bone fragments with the lifted sinus membrane moved into the sinus antrum, and there was a limit to new bone formation. In Boneject and TBC groups, the volume of the spaces was maintained for long time, and they showed larger volume of new bone than the empty group.