대한구강악안면외과학회
제38회 종합학술대회 및 정기총회

THE 38TH CONGRESS of
KOREAN ASSOCIATION OF ORAL & MAXILLOFACIAL SURGEONS(1997)

일정안내 및 초록

PROGRAM & ABSTRACT

일시: 1997년 4월 17일 ~ 19일
Date: April 17th ~ 19th 1997
장소: 쉐라톤 워커힐 호텔 대회의실
Venue: Convention Center,
Sheraton Walkerhill Hotel, Seoul, Korea

대한구강악안면외과학회
KOREAN ASSOCIATION OF ORAL & MAXILLOFACIAL SURGEONS
New Bone Formation in the Space after Lifting the Sinus Membrane—An Experimental Study Using Sinus Lift Procedure

Takao Watanabe, Izumi Nakao, Kanichi Seto
First Dept. Oral and Maxillofacial Surg., Tsurumi Univ. Schol. of Dental Medicine
Kosei Dental Clinic, 2-16-16, Yawata, Ichikawa, Chiba, Japan

The report confirm experimentally how new bone is formed in the space after lifting the sinus membrane using sinus lifting procedure. We used the frontal sinus of dogs because it is similar in size and histological structure to the sinus membrane of humans maxillary sinus. Twenty adult dogs around 10Kg in weight were used. Under general anesthesia, an opening was made on both sides of the frontal sinus. An implant was placed beside the opening after lifting the sinus membrane. The space made after lifting the sinus membrane in the right frontal sinus was filled with collagen material and the left side space was left empty in group A.

In group B, the right side space was filled with bovine bone ceramics with collagen gel (Boneject tm, Koken Ltd ) and the left was only with bovine bone ceramics. The dogs were killed at intervals of one week, one, two, three and six months. The frontal sinuses were then histologically observed. The results where no materials was used in group A show that one week later coagulated blood and granulation tissue filled the space. One month later the space contained fibrous connective tissue and new bone. Three months later the size of the new bone reached it’s peak. In the group of the right space where collagen material was used, severe inflammation was observed in the first month. New bone was observed for the first time in the cases of two month. It reached also it’s peak in the three month. The group B showed that new bone in both space where Boneject or bovin bone ceramic granules were filled, started to form within one week and also reached it’s peak in the three month. New bone in those cases was confirmed on the surface of the sinus wall bone and the bone fragment which transferred into the sinus. On the contrary, no case showed new bone formation at the sinus membrane lifted.

It concluded that 1) new bone starts to form within one month in the cases where the space is left empty, 2) biomaterials influence on the bone
formation, 3) new bone forms from the sites of the sinus wall bone and the bone fragment transferred.