



Considerations of implant treatment for dense bone (type 1) in the mandible; two cases report.

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Purpose : The purpose of this case report was to describe the recovery cases after initial failures of implant treatment in patients with dense bone (type 1) in the mandible and consider the causes of failures and the proper techniques of dealing with such patients.

Materials and Methods :

Case 1: The patient was 66 years old (P1; male, smoker). He complained poor stability of the complete dentures, especially in the mandible. Our first treatment plan was implant-supported overdenture with four implants between mental foramina.

Case 2: The patient was 55 years old (P2; male, smoker). His chief complaint was difficulties of chewing because of lack of mandibular right molars. Our first treatment plan was two implants-supported crowns.

Both patients had computed tomography (CT) examinations to evaluate their bone volume and quality with a diagnostic stent. CT indicated that their bone qualities were dense and less cancellous bone (type 1).

P1 had an operation in February, 1998 and P2 had in February, 2003.

Results :

After implantation, P1 lost two implants without any subjective symptoms and showed dehiscence and pus discharge after four months. All implants were removed and he had a recovery operation five years later. P2 had two implants in the right mandible and showed no symptoms initially. However, two month later, he showed abscess around implants and massive bone resorption. The implants were removed and a recovery implantation was performed one year later.

Both implantations were performed carefully, especially avoiding overheat and excessive compression to bone. All implants function without any problems now.

Conclusions :

The relative merit of type 1 bone seems to achieve primary stability. On the other hand, it tends to be less bleeding and be compressed excessively, so surgeon should be careful to place implants. To avoid overheat of bone, we should use incisive drilling burs with sufficient cooling water. In addition, we should pay attention to the placement torque to avoid excessive compression to bone.