

Important Numbers in Implant Dentistry

1 Unit Implant

Detachable one-unit implant prosthesis using meso-structure in a patient with inappropriate number of implants and fixture angulation : A case report

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Introduction

Fixed prosthodontics supported by dental implants are preferred over removable prosthodontics for its better support, stability and comfort upon removable dentures. However, bone quality, amount, direction of alveolar bone, anatomical structures and financial constraints could limit the number of implants and lead to improper implant orientations. In this case one-unit porcelain fused to metal bridge with meso-framework is used to solve the improper implant number and angulation problem.

Case Presentation

► Patient Information

- Patient : 62y / Female
- C.C : Esthetic implant prosthesis
- P.M.H : N/S



Implant fixture (Osstem® USII RBM)

Implant installation on

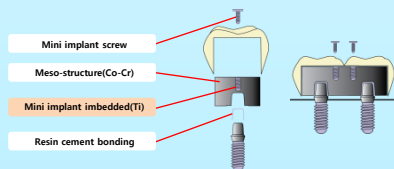
• Problem List

- ① Patient's demand of esthetic prosthesis
- ② Buccal angulation of maxillary implants
- ③ Restricted implant numbers
- ④ Atrophy of edentulous alveolar ridge
- ⑤ Detachable prosthesis required (porcelain repair)

• Treatment Plan

- : One-unit implant supported fixed prosthesis using meso-structure

► Concept illustration



Advantage of one-unit porcelain bridge with meso-structure

- ① Better stress distribution (splinting effect)
- ② Solution for buccal access hole on esthetic zone
- ③ Better accessibility than lingual set screw
- ④ Detachable (porcelain repair)

► Treatment Progress

< Provisional restoration >



For 3 months

< Jaw relation registration >



< Definitive one-unit bridge >

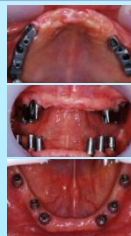


Point of definitive prosthesis

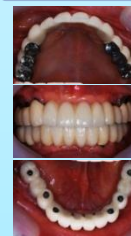
- ① Porcelain occlusion on lower prosthesis (patient's demand of esthetics)
- ② Restored tooth : posterior to the first molar (no cantilever)
- ③ Pink porcelain used to mimic gingiva (severe alveolar bone resorption)
- ④ Occlusion: canine guidance

< Definitive prosthesis delivery >

Framework cementation



Porcelain fused to metal setting



< Postoperative X-ray (1 year after delivery) >



Conclusions

During 1 year of postoperative follow-up, the patient adapted well to the new prosthesis and was satisfied with the mastication function and esthetics. Complications and peri-implant osteopathologic change was not found during 1 year follow-up. In this case, a patient with improper implant number with buccal angulation was treated by one-unit porcelain bridge using a meso-structure framework and resulted in satisfactory prognosis.