

## Full Mouth Rehabilitation with Metal-Ceramic Implant-Supported Fixed Prosthesis: Case Report

Hamid Shirazi

Paris

**\*Corresponding author**

Hamid Shirazi, DDS, DUFPO (Rene Descartes University), Paris, Email: hamid\_shirazi65@yahoo.com

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**Keywords:** Edentulous jaws, Dental implants, Fixed prosthesis**Introduction**

The patients which was lost their teeth, supporting alveolar bone, and muscles visit the dental clinics seeking for a good Smile and psychological advantage of acting and feeling similar to natural teeth. The aim of a dental prosthesis is to replace the teeth and to restore function, esthetics, and speech. Full-arch implant Supported fixed prosthesis is a well-established treatment modality for edentulous patients, and gives an opportunity to such patients a normal healthy life for their functional and esthetic demands. Fixed prosthesis need less repair and less maintenance compared with removable prosthesis.

Edentulism is associated with compromised esthetic, functional, and psychological complications. Rehabilitation of completely edentulous patient presents a challenge to the dentist. Success rates of fixed implant Supported Prosthesis are high and postoperative complications are relatively low.

**Case Report**

A 60-year-old female patient reported to my clinic with the complaint of complete edentulous jaws. The teeth have been extracted 3 years earlier, and since then she has been wearing an acrylic removable complete denture however, she has difficulty chewing with this removable denture, so she wanted to replace it with a fixed prosthesis. The patient was a nonsmoker in good general health, and she had no significant medical history. The intraoral examination showed that she had good gingival and Periodontal health.



Figure 1

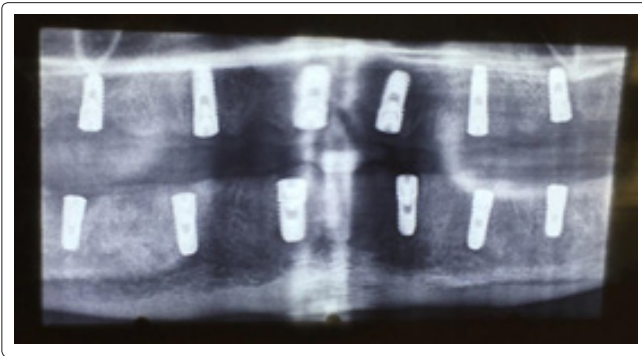


Figure 2

The residual ridge in maxillary arch had sufficient width mesiodistally and buccolingually and was covered by healthy Keratinized mucosa. After clinical and radiographical examination, it was decided to place implants by flapless surgical procedure in maxillary arch and by surgical procedure with flap in mandibular arch. Diagnostic impression of both maxillary and mandibular arches were made with an alginate impression and Preoperative Photographs were taken for future reference. It was decided to place 6 implants (Dentis, dental implant system, Korea) for each edentulous jaws.

**Surgical Phase**

In maxillary arch, surgery was performed under local anesthesia, and a flapless Procedure has been used, with a tissue punch perforated the gingival tissue to gain access to bone without elevating the flap. In mandibular arch, two stage surgeries were planned. All sterilization and disinfection protocols were followed prior to surgery. Midcrestal incision was made extending from each first molar on mandibular arch and flaps were reflected. In both of arches, a pilot drill was made to create osteotomy site. After that other drills were used and all of fixtures were placed in the osteotomy sites. Primary stability was verified and cover screw was placed. 6 implants were placed in the each arch.



**Figure 3**

In the end of surgery procedure in mandibular arch interrupted suturing was done. Postsurgical instructions were explained to control postoperative pain, and an infection. Antibiotic and analgesics, were prescribed to the patient for 3 days.

**Prosthetic Phase**

The patient is asked to return for implant restoration after three months of healing following the surgical implant placement. First the cover screws were removed from fixture and replaced by abutments.

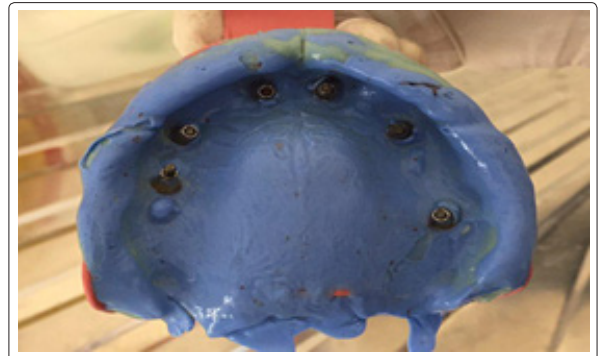


**Figure 4**

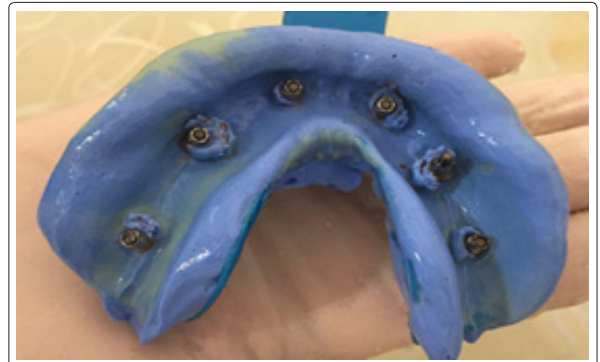


**Figure 5**

During the impression procedure, screw access has filled with a temporary material. The heavy body polyvinyl siloxane (pvs) impression material was loaded inside the impression tray (closed tray). After than light consistency polyvinyl siloxane impression material was meticulously syringed around the abutments to ensure complete coverage of the abutments.



**Figure 6**



**Figure 7**

The impression was taken out from the patient's mouth with the abutment. The healing abutments were replaced immediately to prevent soft tissue collapse over the implant. The impression was now ready to be used to create a metal framework.



**Figure 8**



**Figure 9**

The metal frame works were tried to evaluate and verify a passive fit intraoral. The shade is selected, and an intraocclusal record is made and send to the laboratory for next step. The veneering porcelain was applied on the frame works. The metal ceramic restorations were evaluated. The prostheses were inserted after staining, glazing, and finishing in dental laboratory. The screw access holes of the prostheses were sealed, and the bridges were provisionally cemented.



**Figure 10**



The patient was followed up and no adverse effect was observed [1,2].

#### References

1. Carl E Misch (2015) Dental Implant prosthetics 2<sup>nd</sup> edition.
2. Randolph R Resnik, Carl E Misch (2018) Misch's avoiding Complications in oral implantology.

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