

# Oral rehabilitation with implantation using oneguide system & TS III BA fixture in a poorly controlled diabetes mellitus patient : a case report

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## Introduction

Diabetes mellitus(DM) was often considered a potential risk factor for long-term survival and success of oral implants. Although it was not possible to pinpoint the deleterious effects of DM, diabetic patients showed higher failure rates in many studies. Because poorly controlled DM can have profound effect on healing, we must have close attention & further consideration before implant surgery.

Digital guided surgery system(Oneguide) can help improvement of positional adequacy and decrease of operation time based on the three dimensional CT data. And implant fixture with sand-blasting, acid etching surface coating extremely thin hydroxyapatite (TS III BA fixture) can have better healing potential and osseointegration. Combination of Oneguide system and TS III BA are clinically many advantages in medically compromised patients.

This case report is to consider the clinical outcome and prognosis of TS III BA placement using Oneguide in a poorly controlled DM patient with complicated anatomic conditions.

## Case presentation

(Patient information) (M/57), Diabetes mellitus(uncontrolled)



Fig. 1. 1<sup>st</sup> Visit Panorama & CBCT

- **Consultation** to physician for DM
  - PO med. restart, Diet control
  - Patient : poor Tx. Compliance
- **C/F** : Multiple edentulous state (#14,16,24,35,36,37,47 ext. site)
  - Multiple teeth mobility(+++) → hopeless
  - Severe alveolar b. loss, gingival swelling & inflammation
  - Mild alveolar b. loss, gingival swelling & inflammation on Mn.
  - Both sinus pneumatization(severe)
- **Dx. Imp.** : Chronic periodontitis(Advanced)
- **Tx. plan** : 1. Multiple extraction on Mx. & Mn.
  - 2. (Mx.) Implantation /c sinus lift & GBR using Oneguide
  - 3. (Mn.) Implantation using Oneguide, Immediate provisional prostheses

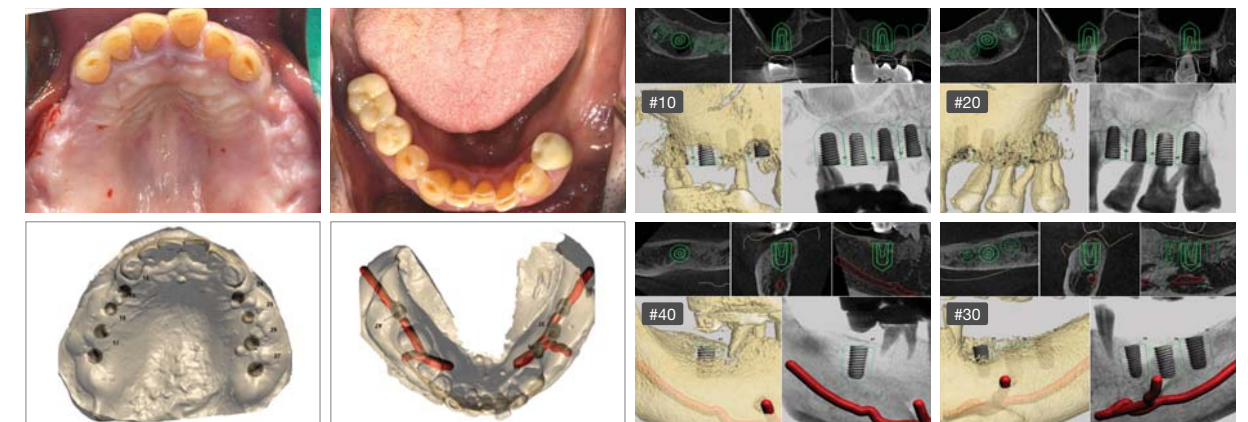


Fig. 2. Pre-op. intraoral photo & Oneguide analysis

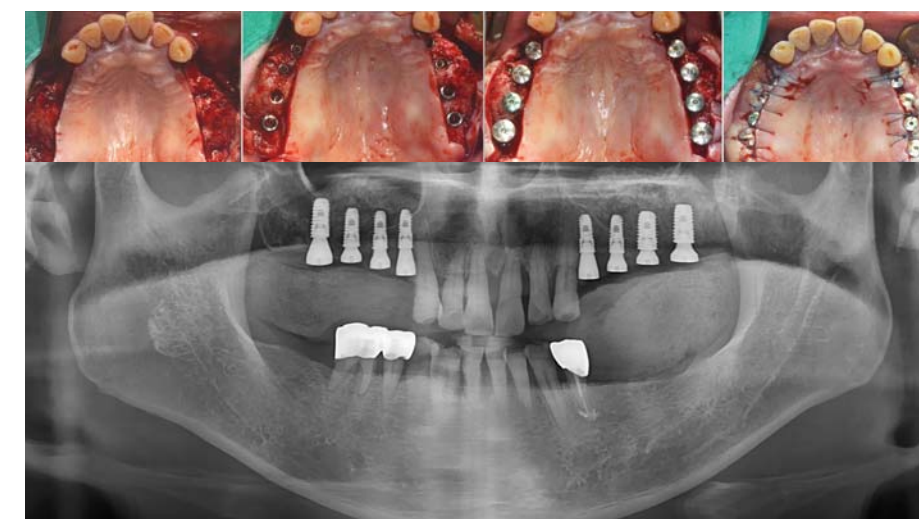


Fig. 3. Implantation using Oneguide & TS III BA fixture on Mx.

**POD 1 year - Panoramic view**

After oral rehabilitation by implantation with Oneguide system and TS III BA fixture, the results keep on successfully. The patient also was satisfied with treatment procedures and result. No complications were observed during during 9 month after loading. Recall check will be planned periodically and consistently.

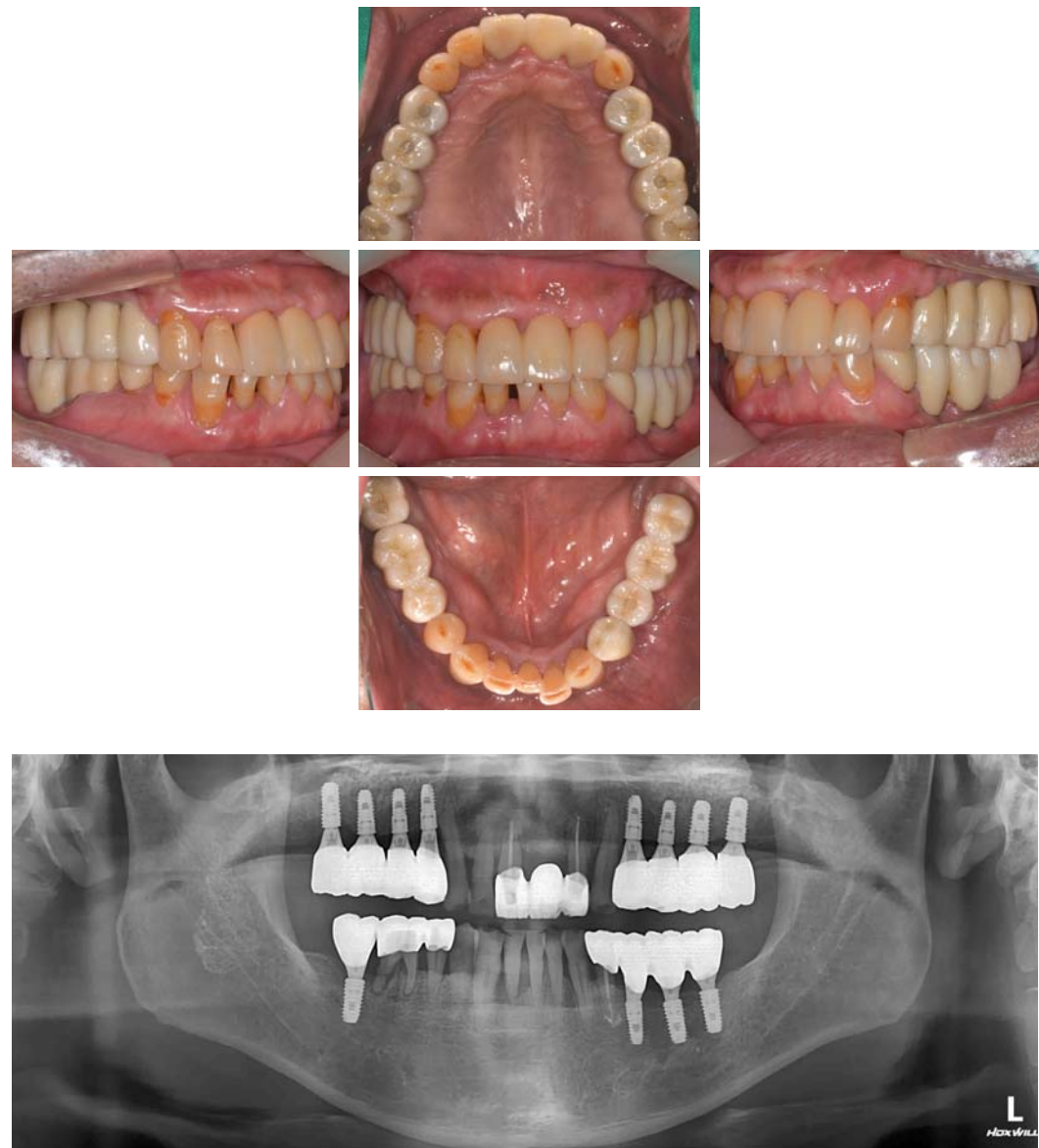


Fig. 4. POD 1 year - Panoramic view

**Conclusion**

Oral rehabilitation with implantation using Oneguide system & TS III BA was clinically successful in a poorly controlled DM patient with complicated anatomical conditions. Combination of Oneguide system and TS III BA may be a good Tx. option for oral rehabilitation in medical-compromised patients. However, further clinical studies are needed.