



Using thermoplastic denture for immediate fixed dental prosthesis.

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Introduction

- Traditionally, immediate loading requires a prefabricated denture, which are currently made from conventional impression or digital impression. Making traditional dentures takes time and labor.¹
- With the advent of thermoplastic material, there is a new possibility of using customizable-prefabricated complete denture (CD) for immediate loading in Full Arch Implant restorations
- The poster demonstrates use of the thermoplastic CD for converting them from removable to an interim fixed dental prosthesis (FDP) in a step wise manner.

Technique

- An edentulous cast with four lab multi-unit analogs along with a medium size thermoplastic CD (GoodFit instant overdenture) was selected to demonstrate this immediate conversion technique (Fig 1).
- Denture was placed in the hot water bath at 200° F for 2 mins. Later the denture was taken out and adapted on the selected edentulous model (Figs 2 and 3).
- Bite registration material (Futar D Fast, Kettenbach) was then used to locate the abutment site (Fig 7).
- Hole were drilled at the abutment site and the denture was placed on the model to check the passive fit of the denture on the implant model. All the interferences were removed (Figs 8 and 9).
- Rubber dam was placed around the temporary sleeves and light body vinyl-polysiloxane (Aquasil Ultra-Extra light body, Dentsply) was flowed into the sleeves to prevent the locking of auto polymerizing resin (Jet acrylic, Lang) inside the ti-sleeves (Fig 10).
- Auto polymerizing resin was pushed between the ti-sleeve and complete denture and allowed to set in a pressure pot. (Fig 11).



Fig 1- Analog model



Fig 2- Hot water bath (200° F for 2 mins)



Fig 3- Adapted denture

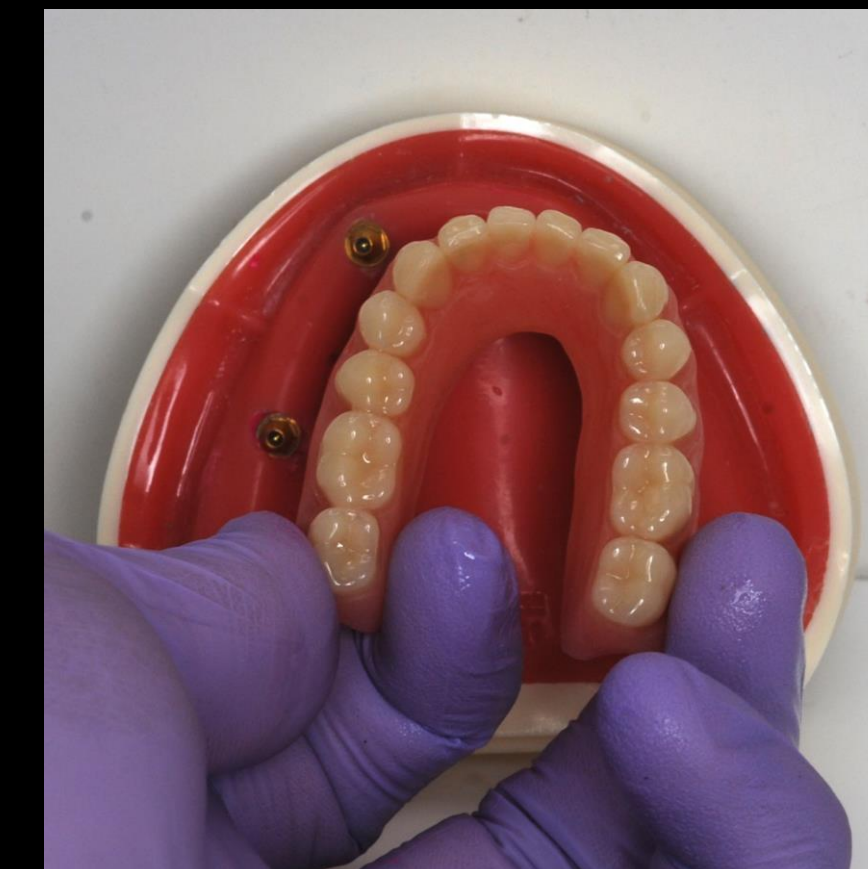


Fig 4, 5, 6- Flexing and extending the thermoplastic denture to adapt the ridge.



Fig 7- Locating abutment



Fig 8- Initial drill



Fig 9- Checking passive fit



Fig 10- Rubber dam placement



Fig 11- Adding auto polymerizing resin



Fig 12 - Finished and polished

- Lastly, the fixed complete denture was unscrewed, separated from the model, finished and polished (Fig 12).

Results

- The thermoplastic complete denture was used to convert into an immediate interim fixed dental prosthesis.
- The process was quick and took a couple of minutes to adapt the denture which saved a lot of time and labor.



Fig 13 - Final prosthesis

Conclusion

The thermoplastic denture can be valuable in managing instant clinical situations and provide patients with natural looking interim prosthesis during implant treatment.

References

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