

Clinical Application of Prefabricated Thermoplastic Dentures for Immediate Locator-Retained Overdentures- A Case Report

Savannah Dennis, DMD; Omar Moustafa, BDS, MS, FRCD(C); David Donatelli, DDS, FACP
Advanced Education in Prosthodontics, University of Louisville School of Dentistry



Introduction

Traditional interim prostheses require multiple steps and lab work, making them impractical in urgent cases. This case report portrays the clinical benefit of having prefabricated thermoplastic dentures that can be adapted chairside, offering a rapid esthetic and functional solution for time-sensitive situations.

Case Description

A new patient with four mandibular locator abutments presented to the University of Louisville's Graduate Prosthodontic clinic after she lost her mandibular overdenture two days before attending a family wedding. A prefabricated thermoplastic denture (Good Fit®) was adapted and converted chairside into a locator-retained overdenture in a single visit.



Figure 1: How patient presented to Graduate Prosthodontics Clinic

Workflow



Figure 2: The correct shade and size prosthesis was selected.

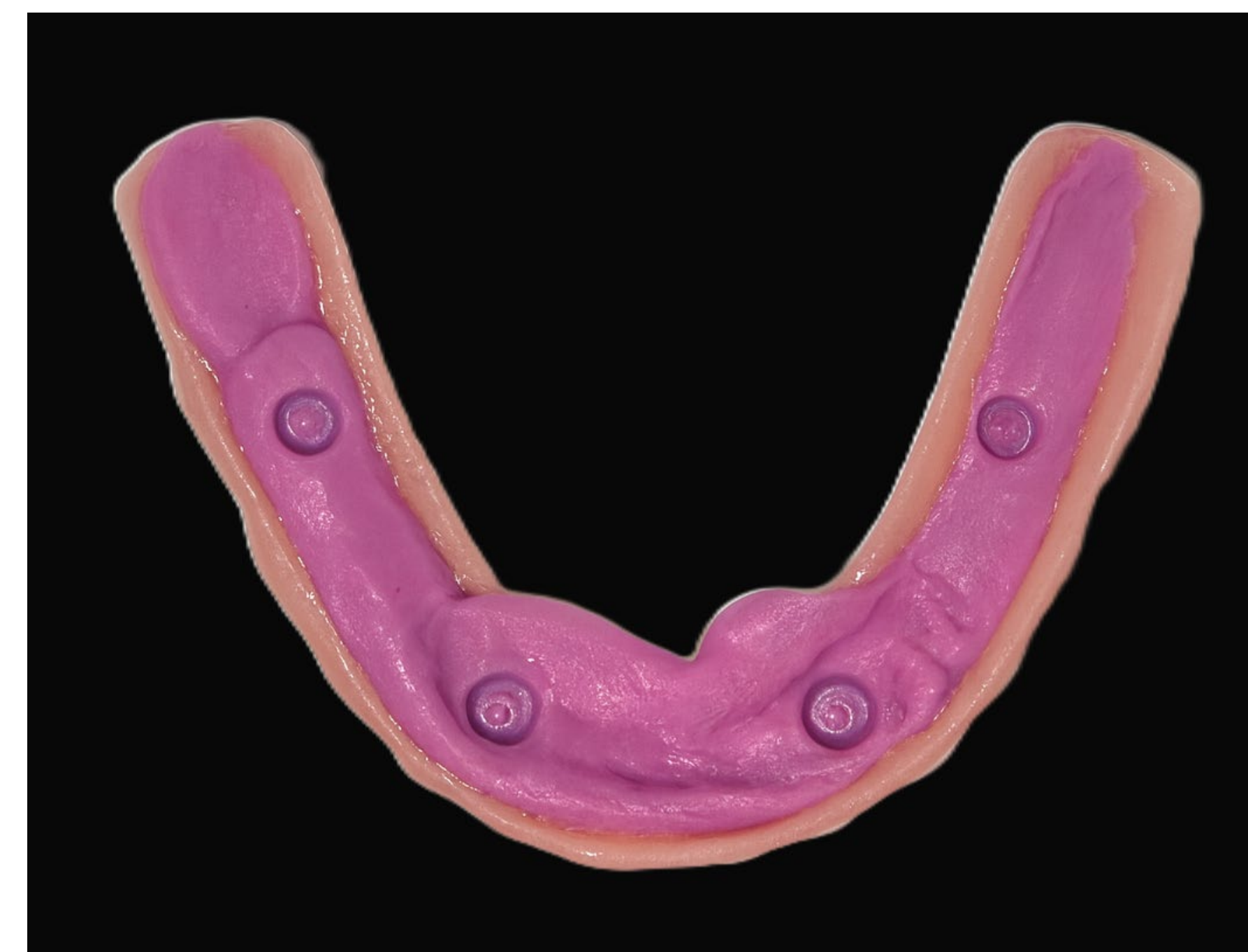


Figure 3: Locator positions marked with bite registration after being submerged in 200°F hot water for two minutes to soften prior to molding.



Figure 4: Locator housings and o-rings were placed over locators.



Figure 5: Relief holes were prepared and self-curing resin was placed in the intaglio surface of the prosthesis.



Figure 6: How patient left the clinic following adjustments and finishing/polishing.

Discussion

This case highlights the advantages of prefabricated thermoplastic dentures in urgent clinical situations:

- Efficiency: Chairside conversion minimized time and eliminated lab steps.
- Patient satisfaction: Met urgent esthetic/social need.
- Flexibility: Provides an emergency solution when conventional workflows are not feasible.

Limitations:

- Long-term durability of thermoplastic materials in implant prosthetics requires further investigation.