Revisional treatment for a failed FP1 design complete arch fixed implant supported prosthesis

AUDREY BRIGHAM, DMD, AVINASH S. BIDRA, BDS, MS, FACP
UNIVERSITY OF CONNECTICUT SCHOOL OF DENTAL MEDICINE, POST-GRADUATE PROSTHODONTICS, FARMINGTON, CT

BACKGROUND

- Various prosthetic designs exist for complete arch implant treatment
- FP1 design = tooth-only prosthesis | FP3 design = tooth + gingiva prosthesis
- With either design, inadequate prosthetic space or shallow implant placement lead to biomechanics + esthetic compromise
- Complications at an increased risk include debunking, poor esthetics, prosthesis fracture, hygiene difficulty, and affected quality of life

FP1 design

FP3 design

OBJECTIVES

1. Highlight the consequences of improper treatment planning in full-arch implant therapy
2. Describe revision treatment steps and outcomes

CASE INTRODUCTION

- A 60yo female presented with recurrent debonding & fracture of a cement-retained FP1 implant-supported prosthesis
- Her medical history is significant for erosive lichen planus & depression
- Risk factors include brachyfacial pattern, bruxism, dry mouth

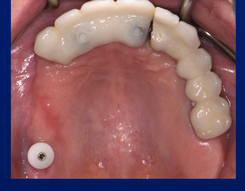
CASE PRESENTATION

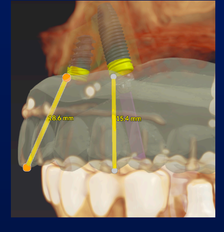
Initial exam

Overtapered, short abutments switched to MUAs

Screw-retained interim prosthesis was 3D printed and inserted

Limited prosthetic space resulted in failed screw retained provisional <1 week after insertion





18mm anterior | *15mm posterior*

After screw-retained rescue attempt deemed unfavorable, comprehensive plan was developed to remove existing implants and re-place with proper prosthetic space analysis

CASE PRESENTATION

Panoramic radiograph showing explantation of all previous implants and placement of 6 new implants including 2 pterygoid implants

Immediately loaded conversion

intraoral scan of soft tissue healing

Current prototype prosthesis

REFERENCES

1. *Bidra, AS. Surgical and prosthodontic consequences of inadequate treatment planning for fixed implant-supported prosthesis in the edentulous mandible. J Oral and Maxillofac Surgery 2010;68:2528-36.*
2. *Parel SM, Phillips WR. A risk assessment treatment planning protocol for the four implant immediately loaded maxilla: preliminary findings. J Prosthet Dent. 2011 Dec;106(6):359-66.*

**Patient consented to full-face photographs- written consent available upon request*