



## RESEARCH ARTICLE

### ANDREW'S BRIDGE: A CASE REPORT

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#### ABSTRACT

**Background:** Replacing anterior teeth in patients with ridge defects often presents functional and esthetic limitations. Andrew's Bridge, a fixed-removable prosthesis, is designed to overcome these challenges by combining the stability of fixed retainers with the esthetic and hygienic benefits of a removable component. **Methods:** This case report outlines the clinical procedure for fabricating an Andrew's Bridge in a 38-year-old female patient presenting with missing mandibular anterior teeth (31, 41, 42) and gingival recession involving 32, 33, and 43. After comprehensive assessment and treatment planning, endodontic therapy was completed on abutment teeth (33, 34, and 43). Subsequent steps included tooth preparation, impression making, wax pattern construction, and casting of retainers with a bar design. A Ceka Preci-Horix attachment was incorporated for secure retention of the removable segment. The final prosthesis was finished, cemented, and delivered following standard clinical protocols. **Conclusion:** Andrew's Bridge provides a conservative, cost-effective, and esthetic treatment option for patients with anterior ridge defects to restore function, esthetics and speech.

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## INTRODUCTION

There are functional and aesthetic difficulties with replacing lost anterior teeth. Various treatment modalities, including removable partial dentures, fixed prostheses, and implant-supported restorations are available. Andrew's Bridge is a unique fixed-removable prosthesis that provides improved esthetics, phonetics, and hygiene maintenance in patients with compromised alveolar ridge conditions. This case report describes the clinical steps in the fabrication of an Andrew's Bridge for a partially edentulous patient with ridge defects.<sup>1</sup>

## CASE REPORT

A 38-year-old female patient reported to the department of Prosthodontics and crown and bridge with the chief complaint of missing anterior teeth and a desire for replacement. Her past medical history was not significant, while her past dental

history revealed extraction of upper and lower posterior teeth two years ago. Personal history was non-contributory. On clinical examination, missing teeth were noted in relation to 31, 41, and 42. Gingival recession was observed with 32, 33, and 43. Further, radiographs of the abutment teeth were evaluated. The maxillary central incisors (11 and 21) showed proclination, and a restoration was seen with 37(Fig.1). Based on the findings, different treatment options including removable partial denture, fixed partial denture, cast partial denture were given to the patient but because of low economic status of the patient, an Andrew's Bridge prosthesis was planned. The treatment procedure included making diagnostic cast (Fig. 2), followed by endodontic treatment of the abutment teeth (33, 34, and 43). Tooth preparation was done on 33, 34, and 43(Fig. 3) and impression was made using irreversible hydrocolloid (Fig. 4). Wax patterns were fabricated on the cast (Fig. 5) and a metal trial was performed (Fig. 6). A pick-up impression was taken using polyvinyl siloxane elastomeric



**Fig. 1. Intra-oral examination**



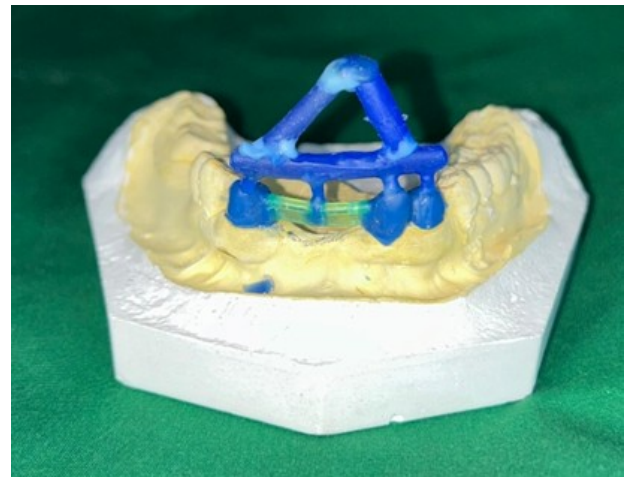
**Fig. 2 Diagnosticcast**



**Fig. 3. Teeth preparation for PFM crown with 32,33,43.**



**Fig. 4. Irreversible hydrocolloid impression**



**Fig. 5. Wax pattern**



**Fig. 6 Coping trial with 32,33,43**



**Fig. 7 Pickup impression with 32,33,43.**



**Fig. 8. Retainers with bar cemented**

impression material (Fig. 7), fixed retainers with bar was polished and cemented (Fig. 8). Shade selection (Fig. 9) was done, jaw relation was recorded and teeth arrangement was done and tried in (Fig. 10). Ceka Preci-Horix Attachment





**Fig.9 Shade selection**



**Fig.10 Try-in**



**Fig. 11 Ceka Preci-Horix attachment**



**Fig.12 Andrew's Bridge**

(Fig. 11) was used, and finally, the insertion of the removable prosthesis was done (Fig. 12). Oral hygiene instructions were given.

## DISCUSSION

Andrew's Bridge, introduced by Dr. James Andrews, combines a fixed component in the form of retainer crowns with a bar and a removable component consisting of missing teeth attached to the bar<sup>1</sup>. It is particularly indicated in cases of alveolar ridge resorption where conventional fixed partial dentures would compromise esthetics<sup>2</sup>. In the present case, the patient exhibited missing mandibular anterior teeth with associated ridge defect and gingival recession. The Andrew's Bridge design provided improved esthetics by replacing the ridge defect along with the missing teeth while maintaining phonetics and ensuring ease of hygiene maintenance<sup>3</sup>. Compared to conventional removable partial dentures, Andrew's Bridge offers superior esthetics, stability, and patient acceptance<sup>4</sup>. Although implant-supported prostheses are considered the standard of care for such ridge defects, financial constraints and anatomical limitations often necessitate alternative treatment options<sup>5</sup>. In such situations, Andrew's Bridge serves as a practical and effective prosthodontic solution<sup>6</sup>.

## CONCLUSION

Andrew's Bridge is a conservative and effective prosthodontic option for patients presenting with anterior tooth loss accompanied by ridge defects. It provides satisfactory esthetics, phonetics, and ease of hygiene maintenance. This treatment modality continues to remain a reliable choice in situations where implants may not be feasible and as a cost-effective option.

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