Prosthetic Rehabilitation with Zirconia Denture Teeth Opposing Zirconia Full-Arch Fixed Implant Prostheses: A Clinical Comparison of Two Cases

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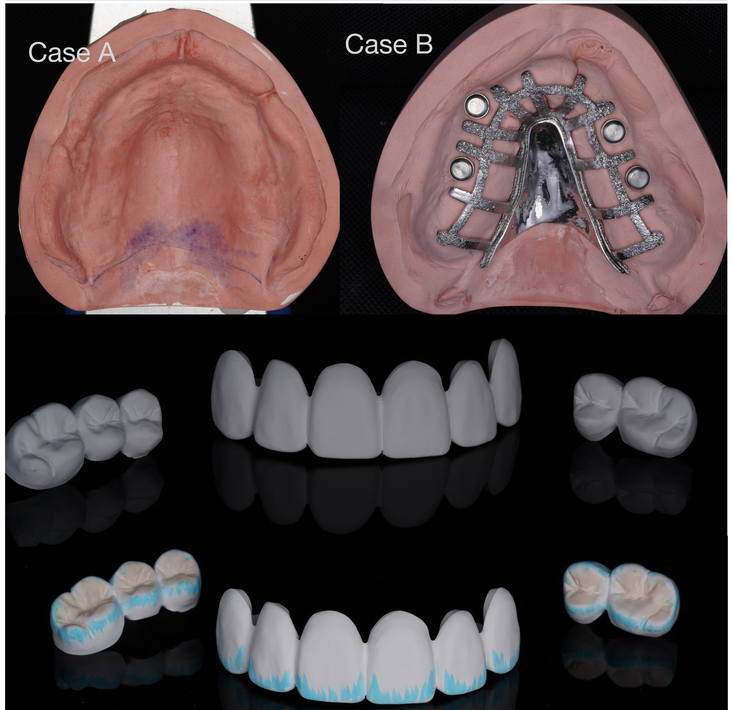
Objective

This clinical report aims to compare the performance of removable prostheses with zirconia denture teeth (one implant-retained and one conventional) against fixed zirconia full-arch implant-supported prostheses.

The focus was to evaluate esthetics, function, prosthetic stability, hygiene maintenance, and patient satisfaction.



Methods

Two cases were presented to highlight how zirconia can be used effectively across different full-arch prosthetic designs, based on individual clinical and patient-related factors.

- **Case 1:** A 65-year-old male presented with a pre-existing mandibular screw-retained zirconia prosthesis. To improve maxillary esthetics and function, four implants were placed to support a zirconia-tooth overdenture using Locator attachments. The prosthesis was fabricated with CAD/CAM-milled zirconia teeth, offering improved wear resistance.
- **Case 2:** A 70-year-old male with complete acrylic dentures underwent mandibular rehabilitation with a full-arch, screw-retained zirconia prosthesis supported by six implants. The maxilla was restored using a conventional complete denture fabricated with zirconia teeth for enhanced strength and durability compared to traditional acrylic.

Conclusion

Zirconia demonstrates excellent clinical performance in both removable and fixed prosthetic designs. Treatment planning must consider not only anatomical and functional aspects, but also the patient's hygiene capability, financial factors, and long-term expectations.