Redefining Aesthetic Outcomes Without Surgery

Conservative Aesthetic Rehabilitation in a Medically Compromised Patient

By Dr. Vaibhav Gupta

ABSTRACT

Minimally invasive restorative dentistry plays a critical role in the management of aesthetic and functional concerns in medically compromised patients, where surgical intervention may pose significant risks.

This case report describes the conservative rehabilitation of a 65-year-old male patient who came with chronic generalised periodontitis, lower anterior spacing, gingival recession, and aesthetic dissatisfaction, along with uncontrolled diabetes mellitus and ongoing anticoagulant therapy.

After periodontal stabilisation, a series of direct composite restorations were performed to close lower anterior spacing and mask root exposure using tooth-colored and gingival-shade composite materials.
A conservative approach was taken to avoid surgical procedures, minimise bleeding risk, and deliver immediate functional and cosmetic improvement.

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INTRODUCTION

Contemporary restorative dentistry emphasises minimally invasive techniques, prioritising preservation of natural tooth structure while delivering aesthetic and functional results. This approach is particularly helpful in the management of medically-compromised individuals, in whom surgical and extensive interventions pose a higher risk.

People with diabetes and those on anticoagulant therapy present unique challenges, including impaired healing potential and increased bleeding tendency. In such cases, conservative restorative strategies offer a safer alternative to surgical correction of aesthetic concerns such as gingival recession and anterior spacing.

This clinical case showcases the power of minimally invasive composite dentistry, demonstrating how careful and strategic planning, material selection, and a conservative approach can deliver natural-looking, functional results, even in medically compromised patients.

Case Presentation

Patient Demographics and History

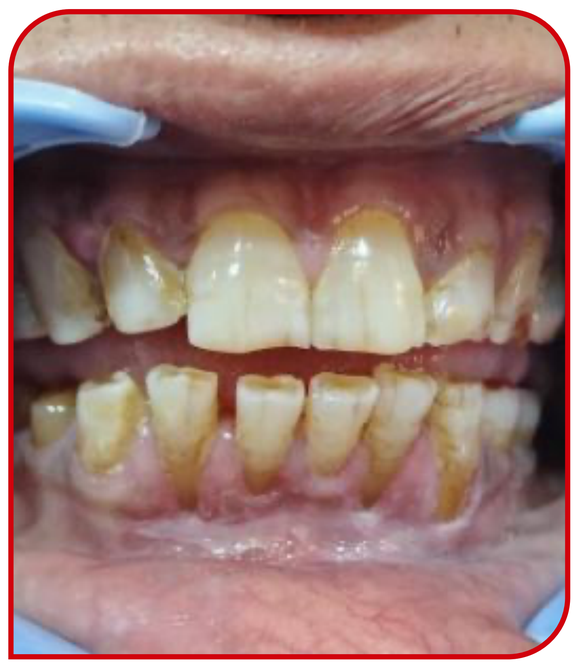
A 65-year-old male patient reported with the chief complaint of stained teeth, deposits, food lodgement in the lower anterior region due to spacing, and bleeding during brushing.

The patient had a medical history of uncontrolled diabetes mellitus and was on anticoagulant therapy for a cardiac condition, necessitating a minimally invasive treatment approach.

Clinical Findings & Diagnosis

On clinical examination, the patient presented with:

- Generalised Periodontitis Stage II, Grade B
  (According to the American Academy of Periodontology and the European Federation of Periodontology)
- Generalised spacing in the lower anterior teeth
- Gingival recession with respect to 41, 42, 32, and 33
- Habitual smokeless tobacco & areca nut consumption



Treatment Objectives & Plan

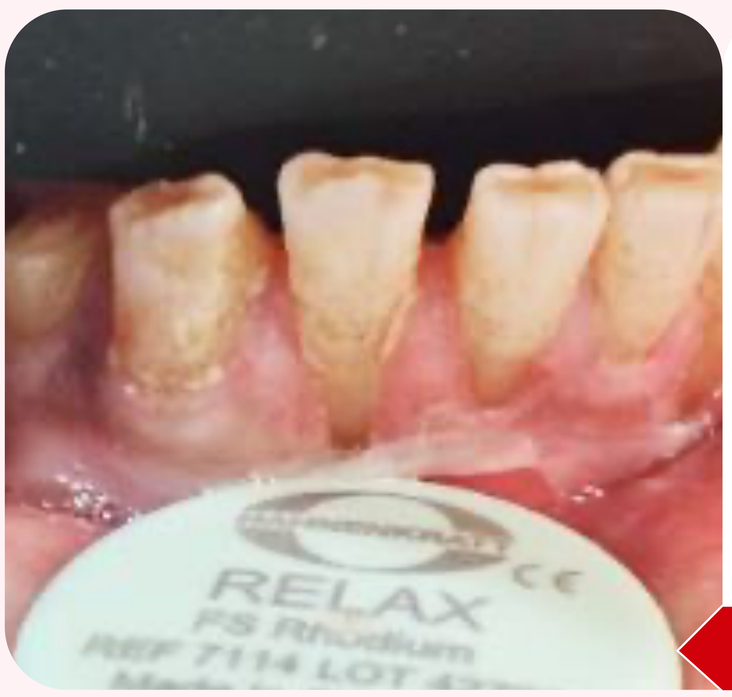
The primary treatment objectives include:

- To achieve periodontal stabilisation before restorative intervention, oral prophylaxis was done using an ultrasonic scaler.
- To conservatively close lower anterior spacing while preserving tooth structure.
- To camouflage gingival recession and exposed root surfaces
- To re-establish proper proximal contacts to reduce food lodgement and improve function.
- To deliver a safe, minimally invasive treatment approach appropriate for a medically compromised patient.

Treatment Plan

- Oral prophylaxis (Scaling)
- Sequential composite restoration of lower anterior spacing using:
  - Direct composite veneer: Ivoclar Tetric N Ceram 2 Shade A2
  - Gingival pink composite in recession areas to camouflage exposed root surfaces
    Brand: Shofu BEAUTIFIL II - Gingiva DP Shade

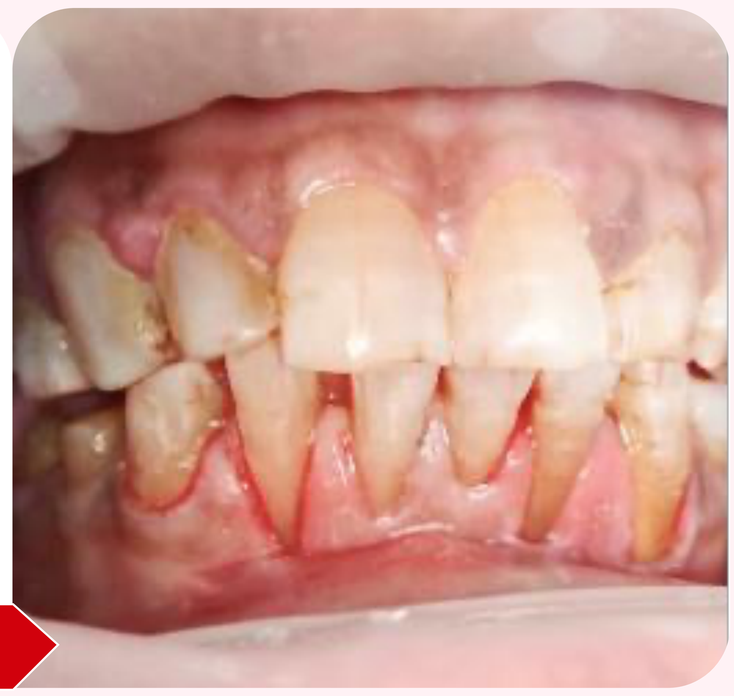
Treatment Procedure



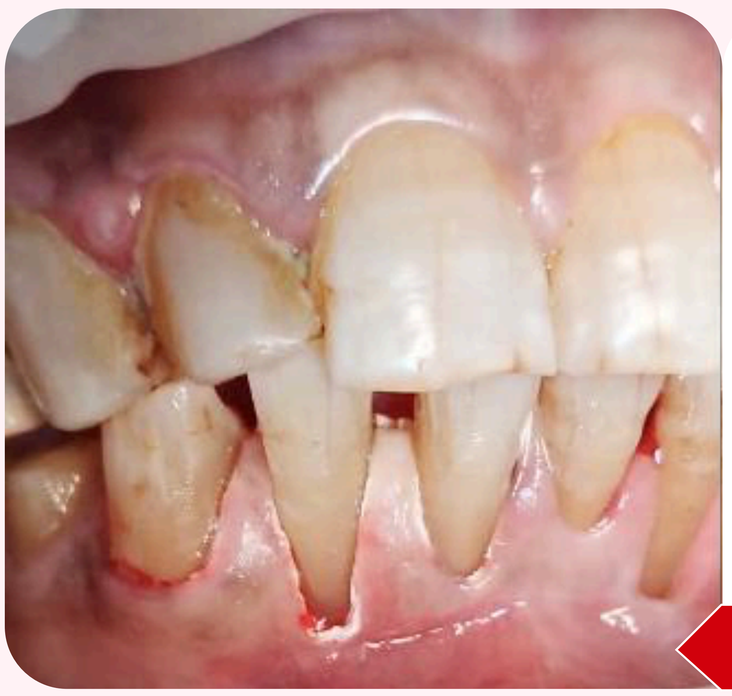
1. Isolation was achieved using Ivoclar OptraGate cheek retractor.

Contrast view - Teeth present in image (L to R)– 43,42,41,31

2. Oral prophylaxis of the lower anterior was performed. Local anaesthesia was administered using Septodont Septanest BLUE with adrenaline 1/100,000 - Articaine hydrochloride 40mg/ml and adrenaline 0.01 md/ml, EP (Infiltration technique)



Immediately after Oral Prophylaxis (Lower Anteriors)

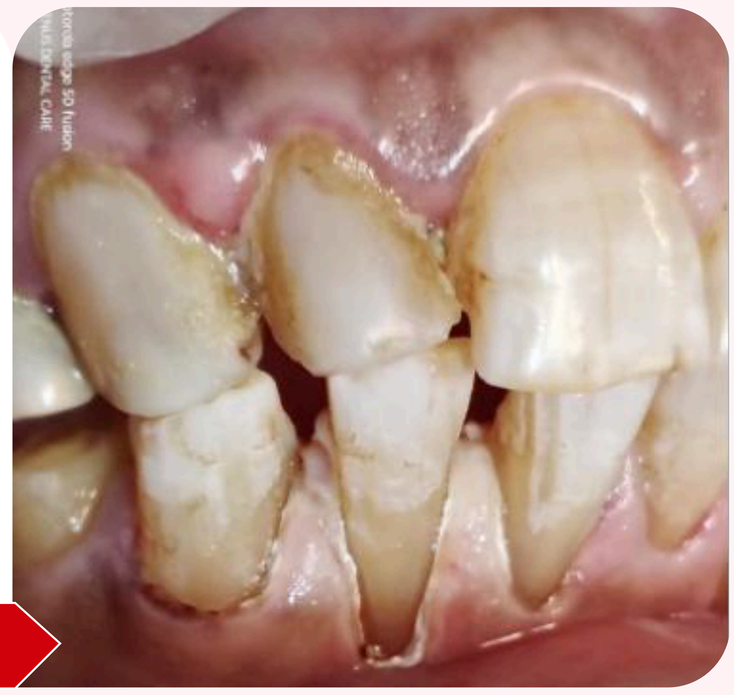


PTFE Gingival Retraction

3. Composite shade selection was carried out.

4. PTFE tape gingival retraction placed around 43, 42, and 41

5. Selective etching was done using 37% Phosphoric Acid (Etching Material)
   Brand: Maarc ETC - 37



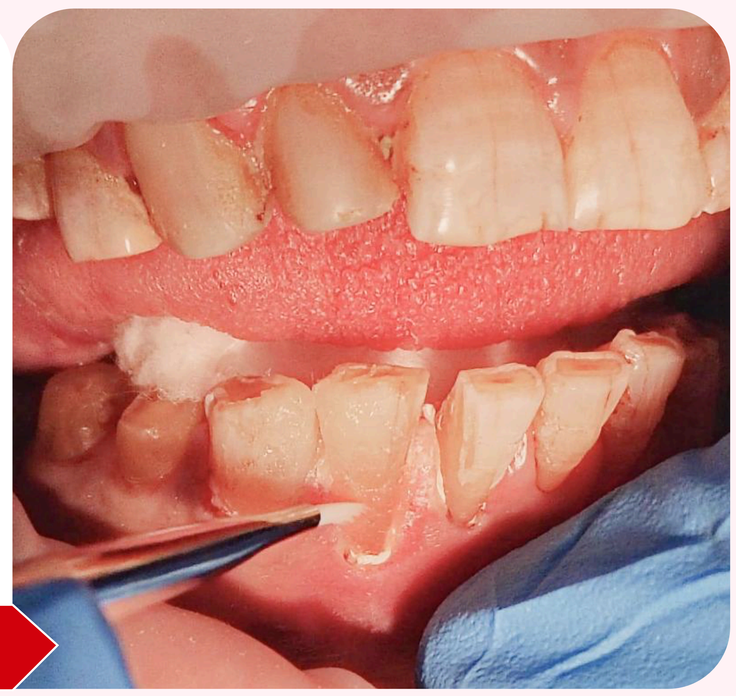
Etching done. Frosted Appearance seen. Bleeding Controlled

Treatment Procedure

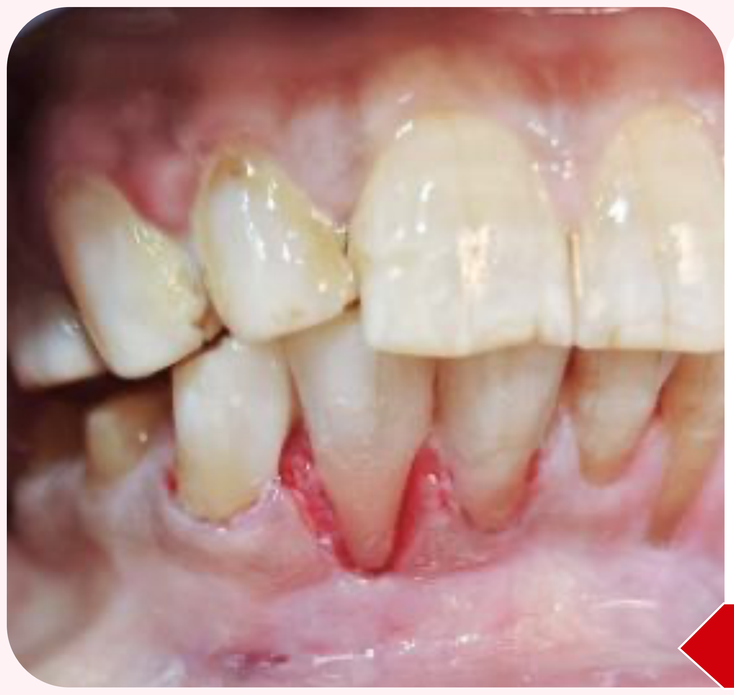
6. A bonding agent (Brand - Ivoclar Tetric N Bond Universal) was applied to the target areas using a Vivapen by Ivoclar.

7. Step-wise composite layering performed to close spacing:
   - Distal of 43
   - Mesial and Distal of 42
   - Mesial of 41 Spacing was uniformly redistributed
   - Composite used: Ivoclar Tetric N-Ceram 2 - Shade A2

8. Gingival composite restorations on radicular areas of 41 and 42 were performed using:
   - Shofu Gingival Composite – Beautifil II - Gingiva DP Shade (Refer to image 6)
   - Finished and contoured using Shofu Uni Brush (Refer to image 6)



Modelling Gingival Composite with Uni Brush - DP Shade



9. Finishing and polishing were completed under isolation using Ivoclar's OPTRAGATE kit.

10. Immediate post-restoration outcome documented (Refer to image 7)

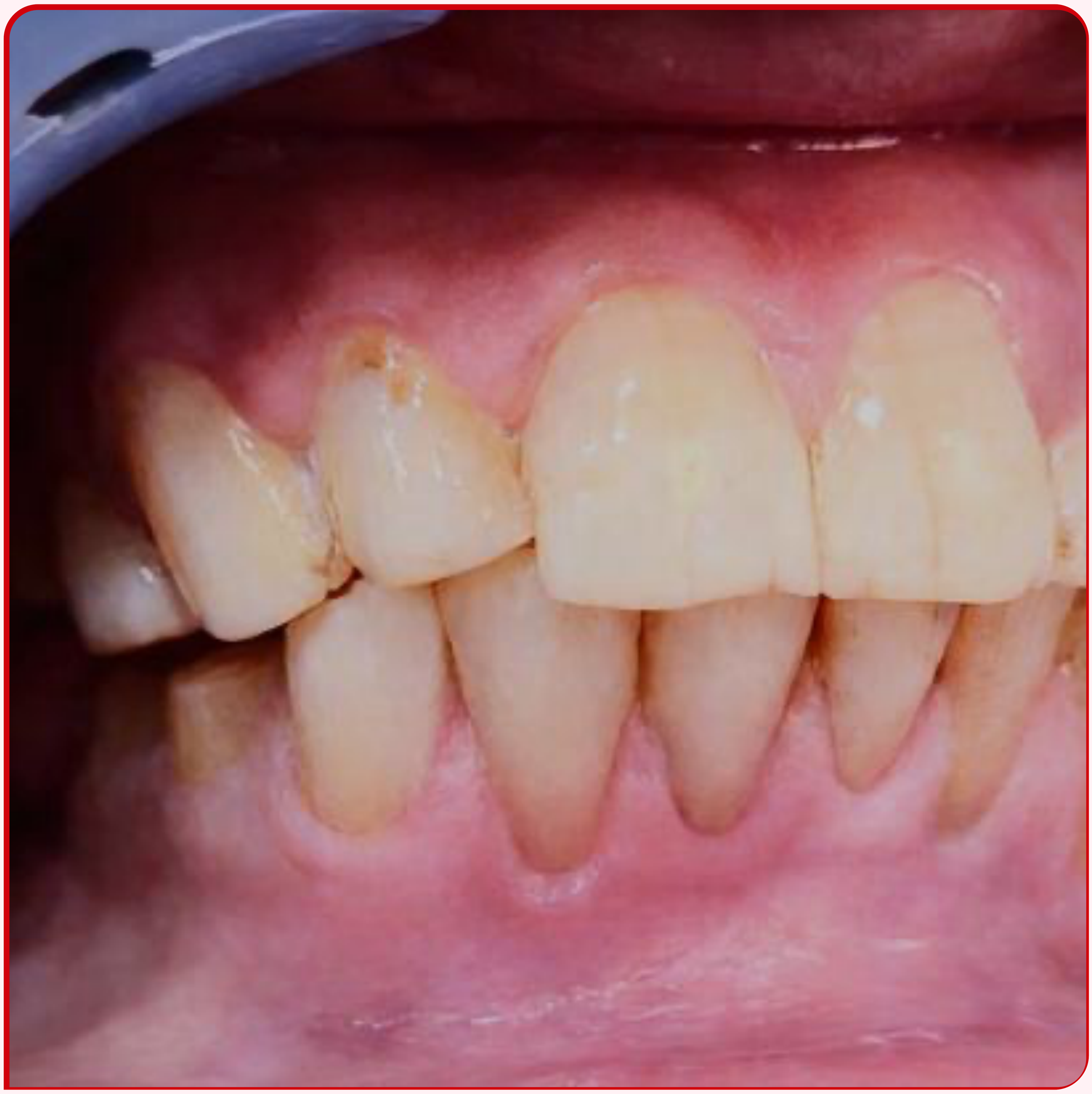
Immediate post-restoration. Note the space closure & gingival pink restoration 41,42

Result

Post-operative Instructions & Follow-up

After treatment completion, the patient was advised:

- Oral hygiene maintenance and complete oral prophylaxis
- Avoidance of tobacco products
- Regular periodontal maintenance visits



A follow-up evaluation after 10 days showed satisfactory results and oral health status.

Discussion & Key Learnings

Rationale for Treatment

- In view of the patient's uncontrolled diabetes and ongoing anticoagulant therapy, a conservative, non-invasive approach was selected.
- Surgical intervention was avoided to reduce the risk of bleeding and promote safe healing.
- Direct composite restorations provided immediate functional and aesthetic improvement while preserving tooth structure and effectively masking gingival recession.

Clinical Challenges

Key challenges encountered during this case included:

- Bleeding was effectively managed using local anesthetic with adrenaline to achieve vasoconstriction. Additional control was obtained with a hemostatic solution with Aluminum Chloride 25% (Prevest Dental).
- Gingival retraction using PTFE tape helped isolate the field and maintain a dry working area during the procedure, despite the patient being on anticoagulant therapy.
- As the case involved the aesthetic zone, precise shade matching and gingival camouflage were essential to achieve a natural and harmonious outcome.

Conclusion

This case demonstrates that minimally invasive composite rehabilitation, combined with periodontal therapy, can effectively address aesthetic and functional concerns in medically compromised patients, while maintaining tissue health and patient comfort.

Note: All images are using mobile photography
Model: Motorola Edge 50 Fusion
Camera Rear 50 MP + 13 MP
Display 2400*1080

Declaration

I confirm that informed patient consent has been obtained for sharing case details and clinical images.