

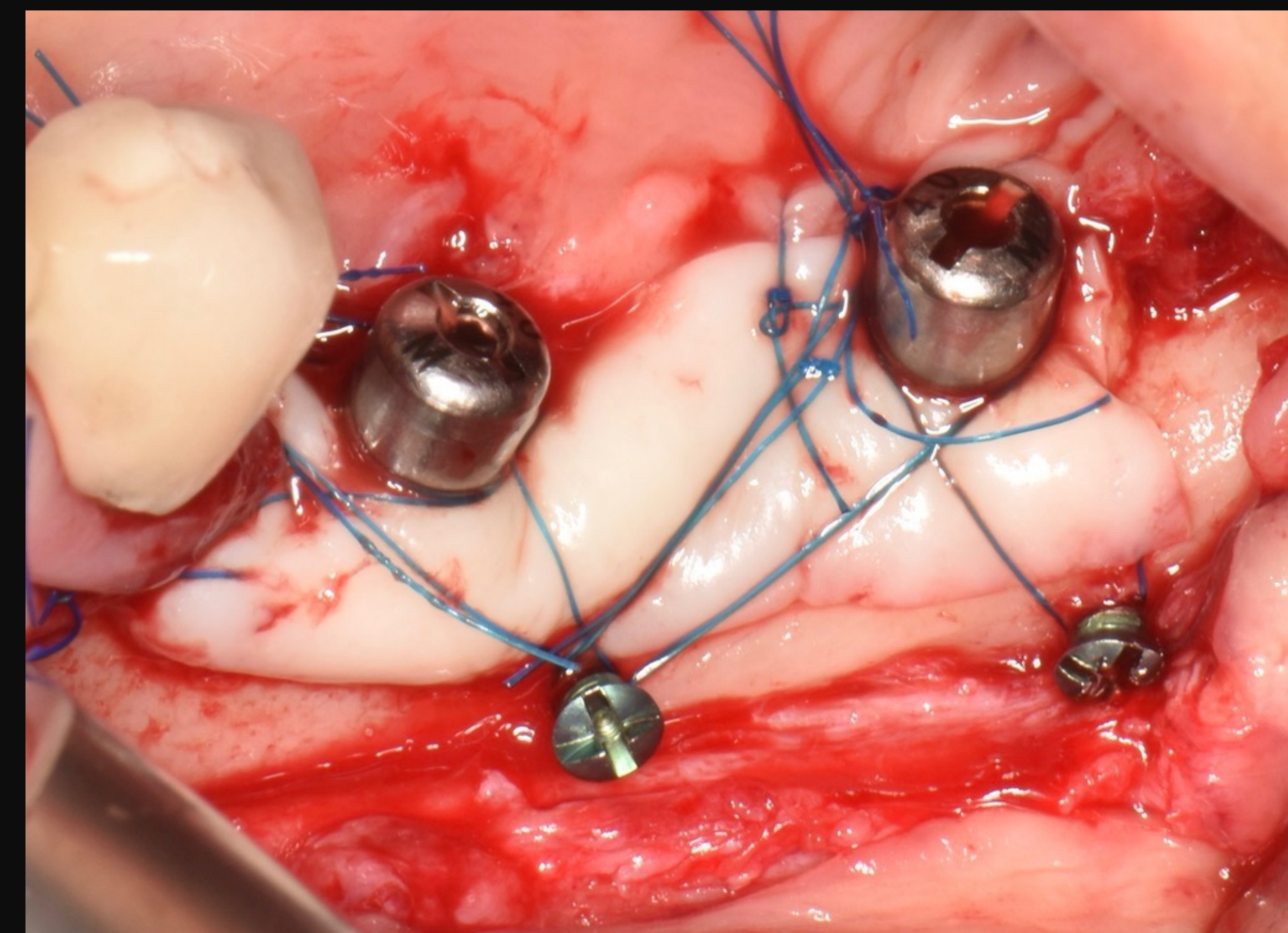
Soft Tissue Management and Vestibular Deepening Around Dental Implants in a Patient with a History of Implant Placement in Combination with Inferior Alveolar Nerve Transposition

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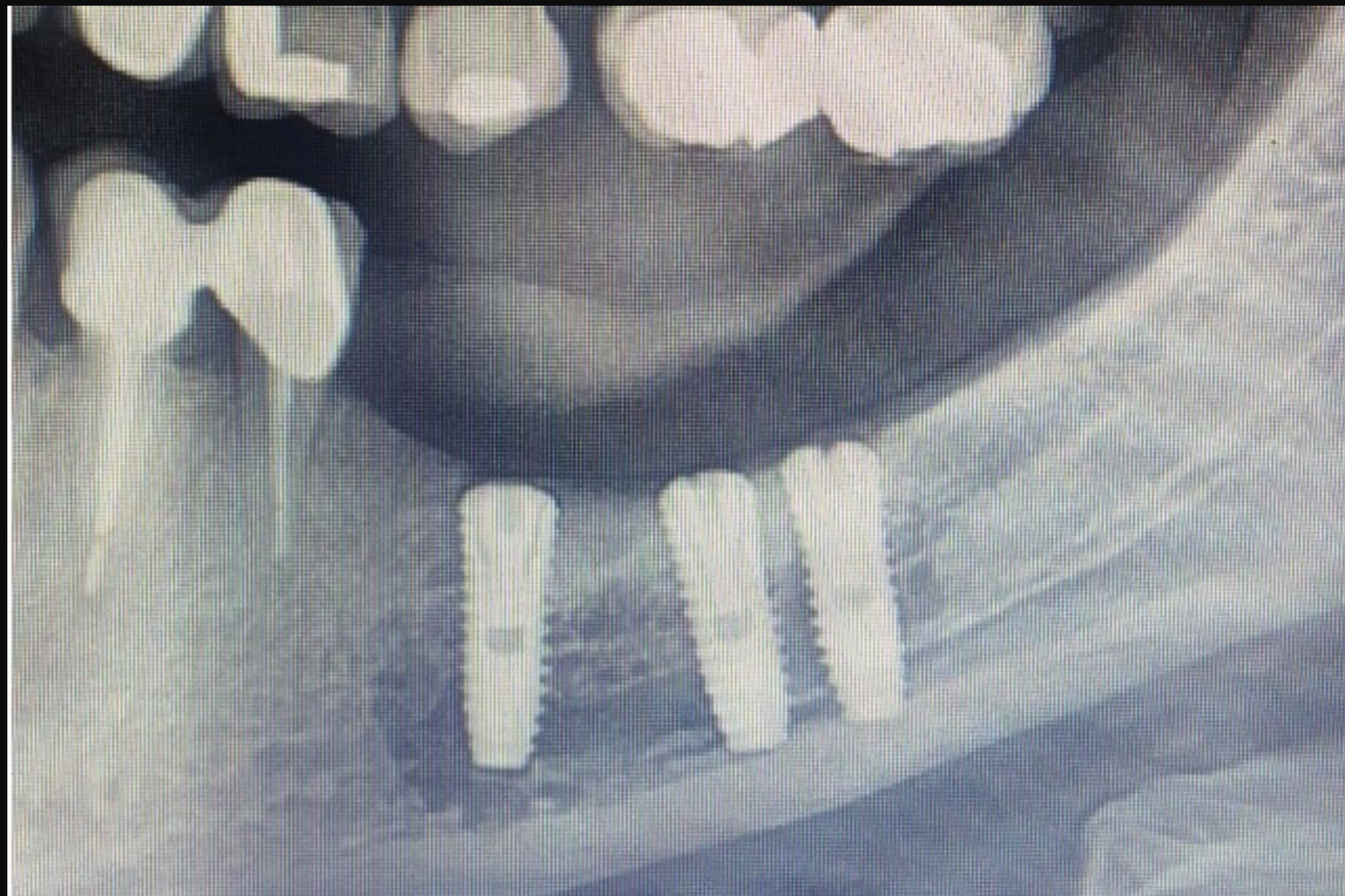
INTRODUCTION

Dental implant placement with inferior alveolar nerve (IAN) repositioning is a treatment modality in cases with severe atrophic mandibles. The presence of sufficient vestibular depth around dental implants is a requirement for long-term implant success. A shallow vestibule may be associated with the limitation of prosthetic flange extension, higher plaque accumulation, peri-implant bone loss, and mucosal recession. Vestibuloplasty after IAN lateralization is a real challenge because nerves are covered with only a thin layer of bone or soft tissues. In this case report, we presented a surgical method to increase vestibular depth around mandibular implants in an IAN Repositioning Case.



METHODS

Simultaneously with IAN lateralization, 3 implants were placed in the left posterior mandibular region. During surgical uncovering, the free gingival graft with vestibuloplasty was used to increase keratinized mucosa and establish a stable vestibule around dental implants. In this case, the elevation of a partial- thickness flap could lead to potential damage to the repositioned IAN during mucosal separation. So, the full- thickness flap was raised and fixed with 2 titanium mini-screws. The free gingival graft was stabilized with sutures and healing abutments.



3 implants were placed in the left posterior mandibular region

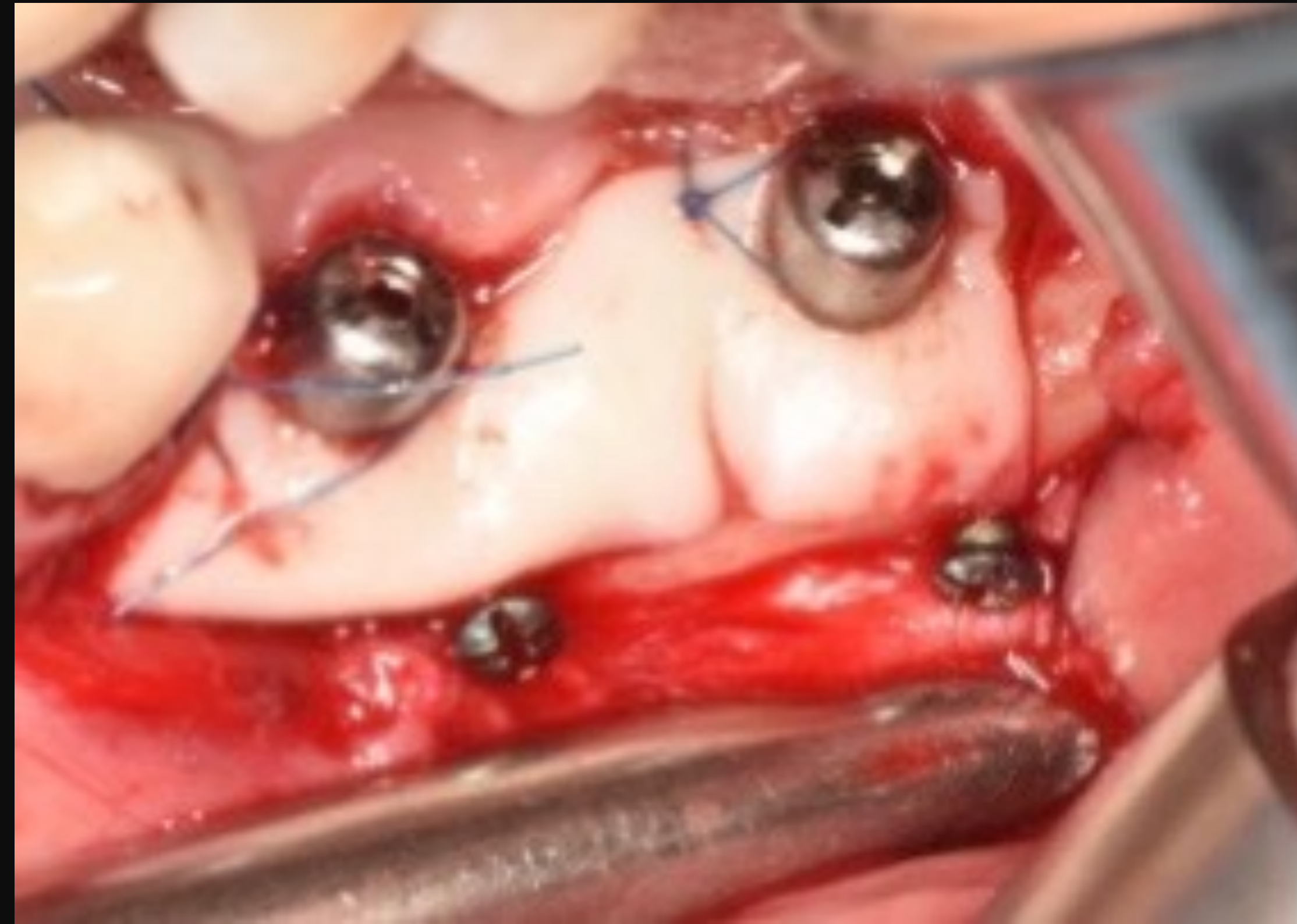


Inflamed soft tissue with a shallow vestibule around the implants (Primary incision)

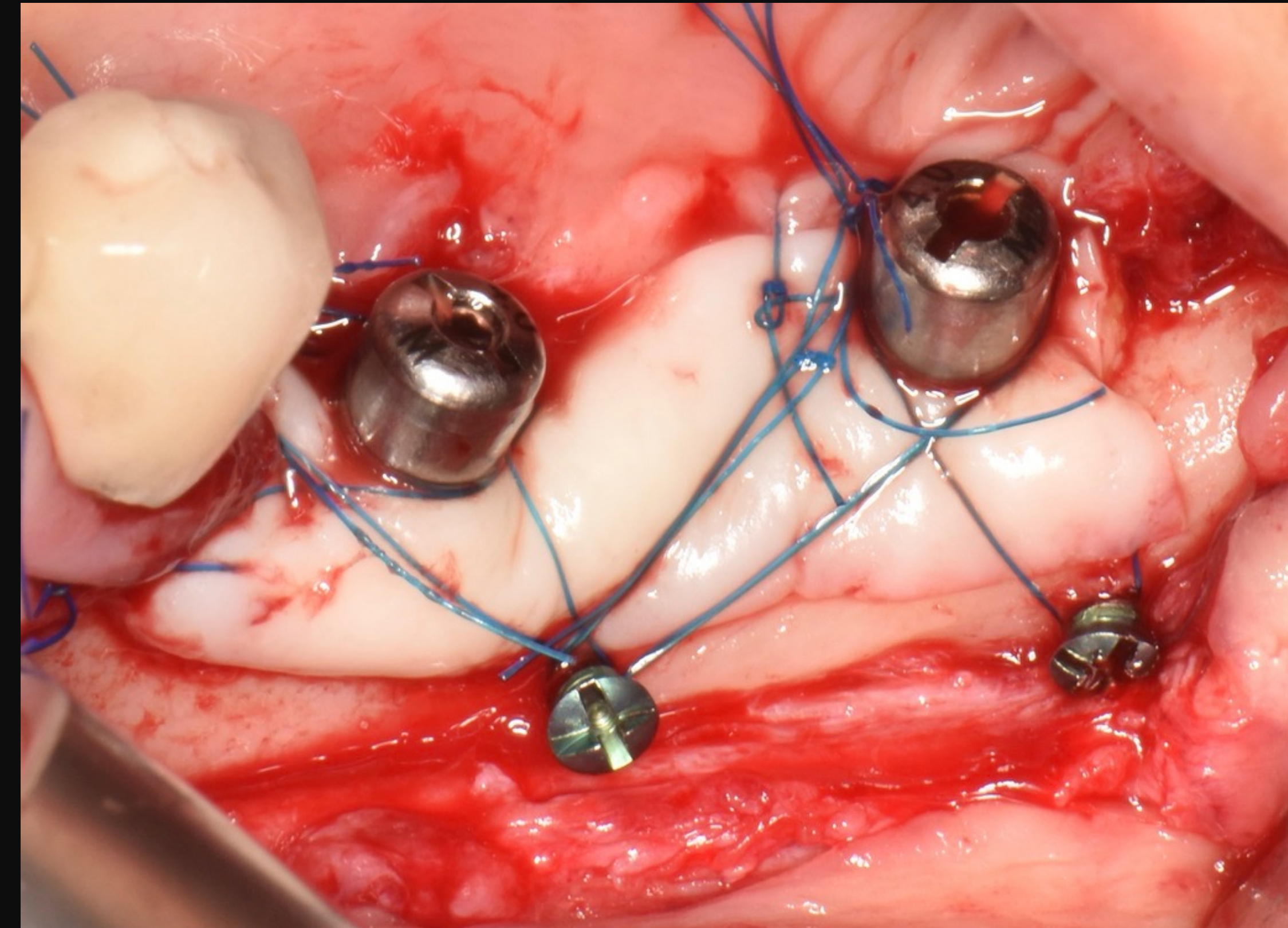


At a distance of 3 mm from the gingival margin, a small incision was made and the healing abutment was hung,

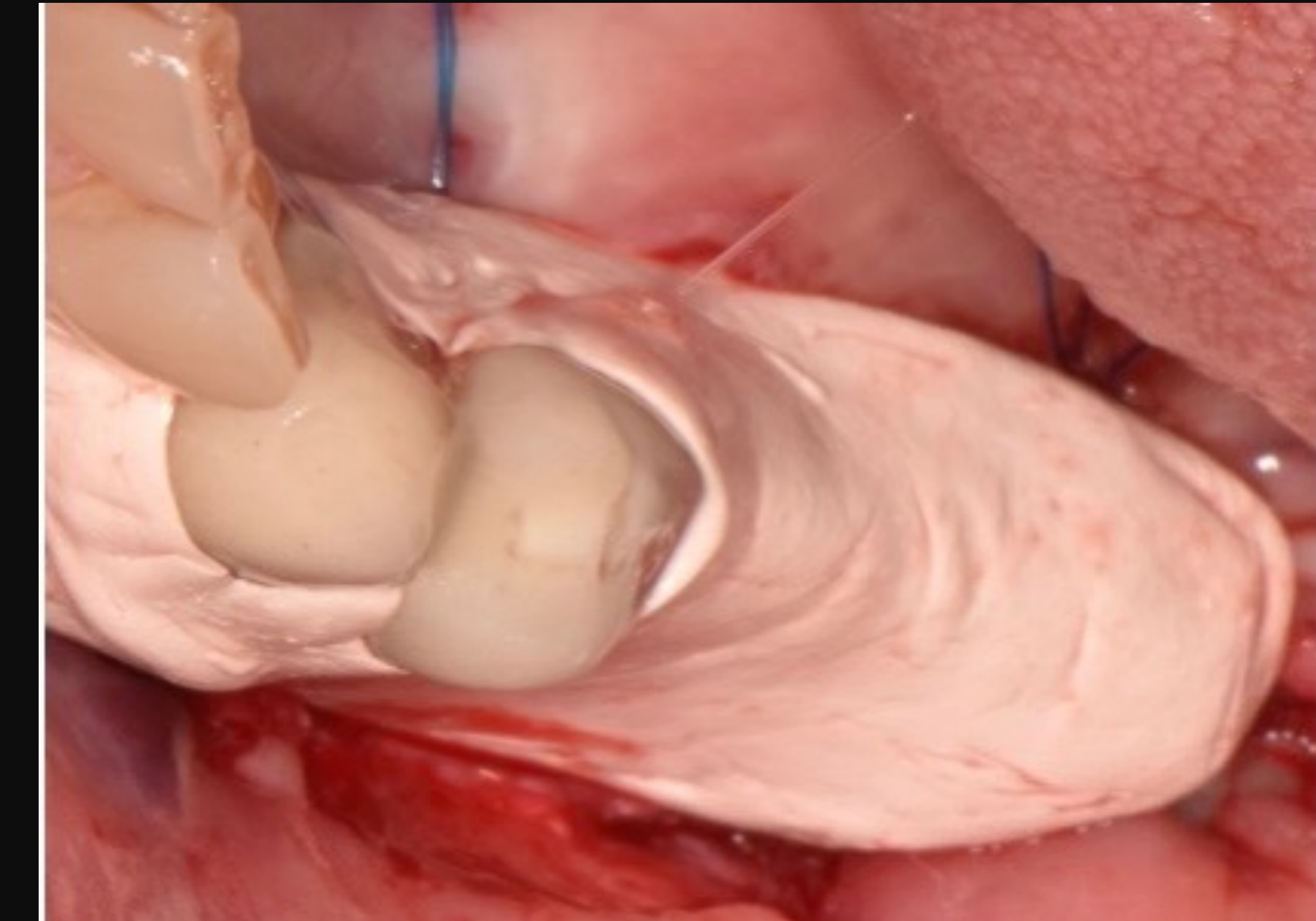
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the coronal part of the free gingiva was fixed, The middle implant was submerged.



the full- thickness flap was raised and the free gingival graft was fixed with 2 titanium mini-screws and with healing abutments was stabilized.



After 2 months



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RESULTS

Successful rehabilitation of a severe mandibular atrophic ridge was done with IAN lateralization, free gingival graft, and vestibuloplasty. An increase in vestibular depth and keratinized tissue width and thickness was achieved which is a determining factor for implant stability.

CONCLUSION

Free gingival graft with Vestibuloplasty and fixation of the full-thickness flap by screws can be suggested in the case of severe mandibular atrophic ridges which need IAN repositioning. Vestibuloplasty by this approach could prevent the risk of damage to the IAN.

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