

Effectiveness of titanium platelet rich fibrin in perimplant mucosal thickness augmentation: A Case Series

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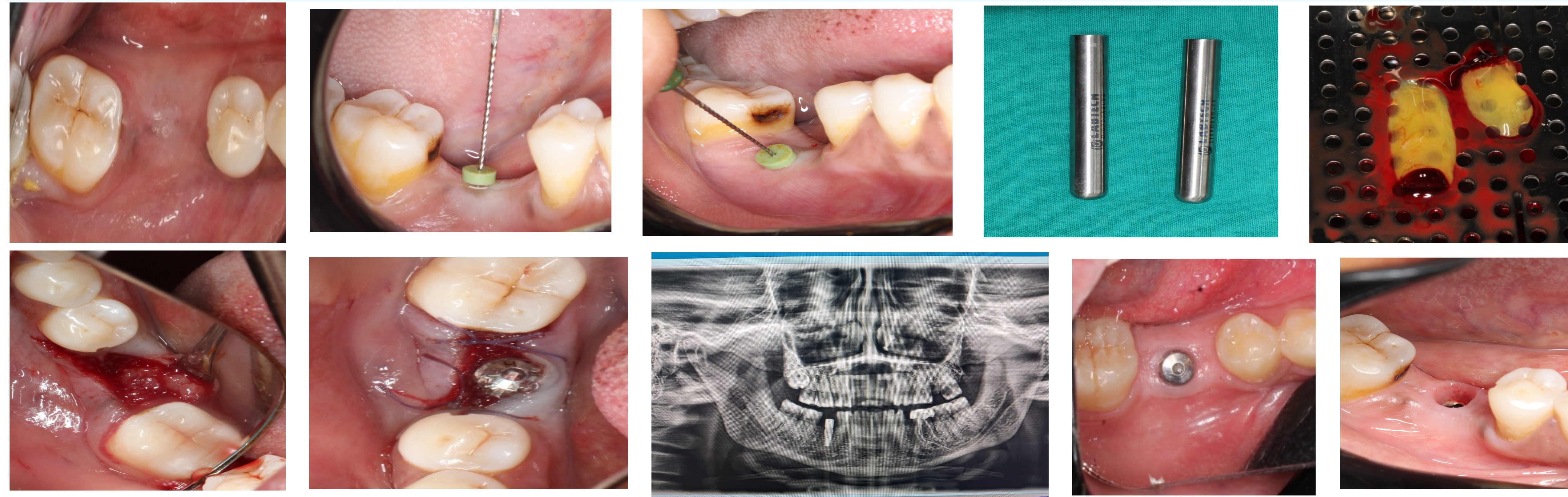
Introduction

The periimplant soft tissue health is associated with periimplant thickness around the implant. Literature has shown that adequate thickness or augmentation of soft tissue has favorable impact on well osseointegrated implant in terms of crestal bone loss, marginal soft tissue profile and esthetics. The use of platelet concentrates has been reported for oral soft tissue augmentation but there is limited data on use of titanium rich platelet fibrin in increasing the perimplant mucosal thickness.

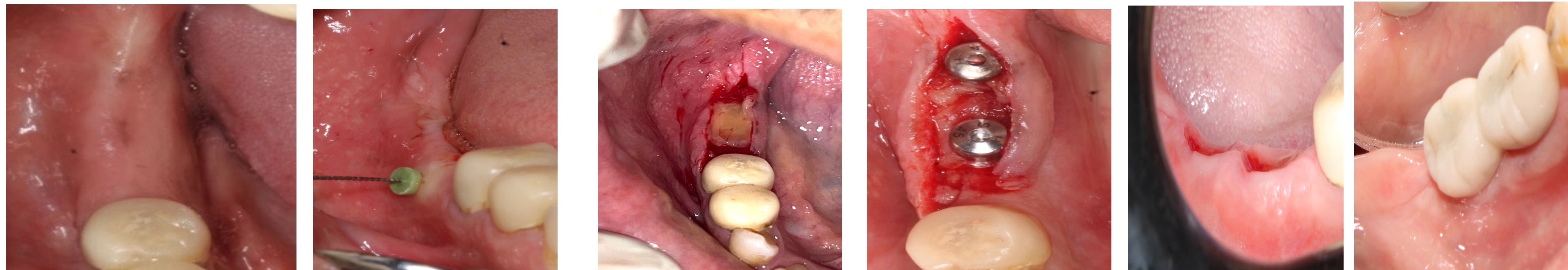
Material and Methods

5 Patients receiving 8 implants (posterior mandible or maxilla) age group 30 to 45 years were selected. Clinical parameters like periimplant mucosal thickness at buccal, crestal and keratinized tissue width were measured using an endodontic file with a stopper and vernier caliper with a precision of 0.001 mm. Crestal incision was given. Titanium platelet rich fibrin was prepared at 2700 RPM/12 minutes. Membrane was stabilized to surgical area with the help of healing abutment as described in Sohn Ponchu technique. Simple interrupted sutures were placed using Vicryl suture. The thickness of perimplant mucosa was the primary outcome assessed at baseline, 4 weeks and 6 weeks

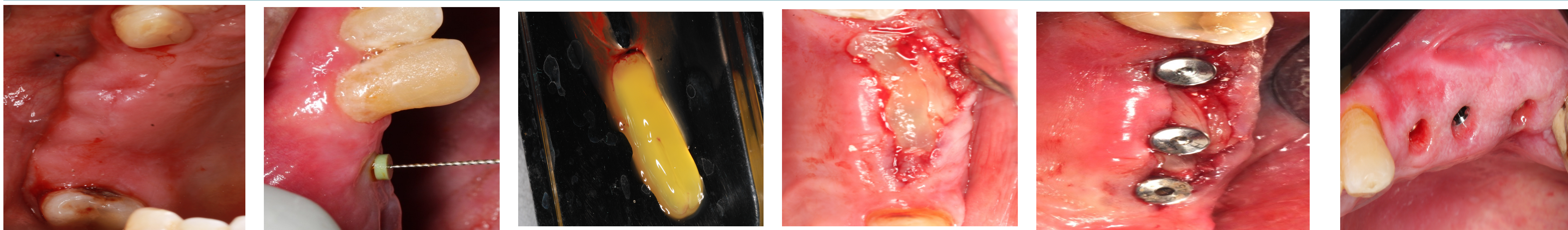
Case 1



Case 2



Case 3



Results

Age of Patients ranged from 30 to 45 years (3males and two females). The buccal thickness showed a gain of 0.82 ± 0.3 mm. Supracrustal soft tissue height was improved from baseline 1.83 ± 0.68 mm to 3.01 ± 0.53 mm 6 weeks postoperatively.

Discussion

The present study aimed to increase the thickness of the peri-implant mucosa with the use of titanium platelet rich fibrin which is a third generation platelet concentrate. It is gaining attention because of biocompatibility, longer resorption time, and better fibrin meshwork. Long term studies with larger sample size are needed to explore its effectiveness in tissue augmentation.

Conclusion

Titanium platelet rich fibrin can be effectively used to increase the periimplant mucosal thickness.

References

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