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Corresponding Author:
Dr. Thipphayaphan Sathitthammaphon,
Center for Implant Dentistry and
Periodontics, Faculty of Dentistry,
Thammasat University, Pathum Thani
12120, Thailand
E-mail: thipferm@tu.ac.th

Horizontal Ridge Augmentation Using Sticky Bone with Platelet-Rich Fibrin (PRF) in Anterior Maxilla Clinical and Histologic Evidence: A Case Report

Kitichai Janaphan¹, Borvornwut Buranawat¹, Jaruwat Hanroongsri², Sasatorn Ardsungnoen³, Thipphayaphan Sathitthammaphon¹

¹Center for Implant Dentistry and Periodontics, Faculty of Dentistry and Research Unit in Innovations in Periodontics, Oral Surgery and Advanced Technology in Implant Dentistry, Thammasat University, Thailand.

²Department of Oral Diagnosis, Faculty of Dentistry, Thammasat University, Thailand

³Dental Hospital, Thammasat University Hospital, Thailand

Abstract

Alveolar ridge deficiency is an unavoidable sequela of tooth extraction and poses major clinical challenges when reconstruction is anticipated. Various surgical approaches have been proposed to address horizontal defects, with autogenous bone grafting considered the current benchmark. However, alternative methods, utilizing tissue engineering principles and bone substitutes, offer reduced patient morbidity. This report presents an alternative case of severe horizontal bone defect augmentation in the anterior maxilla using sticky bone in conjunction with platelet-rich fibrin (PRF), and a Ti-reinforced membrane. Histologic evidence of sticky, deproteinized bovine bone material (DBBM) mixed with PRF without the use of autogenous bone is reported.

Keywords: alveolar ridge augmentation, bone substitutes, guided bone regeneration, platelet-rich fibrin, tissue engineering