

Retrospective Analysis of Outcomes of Peri-implantitis Regenerative Procedures, With a Focus on Comparing The Effectiveness of Submerged And Non-submerged Healing Approaches

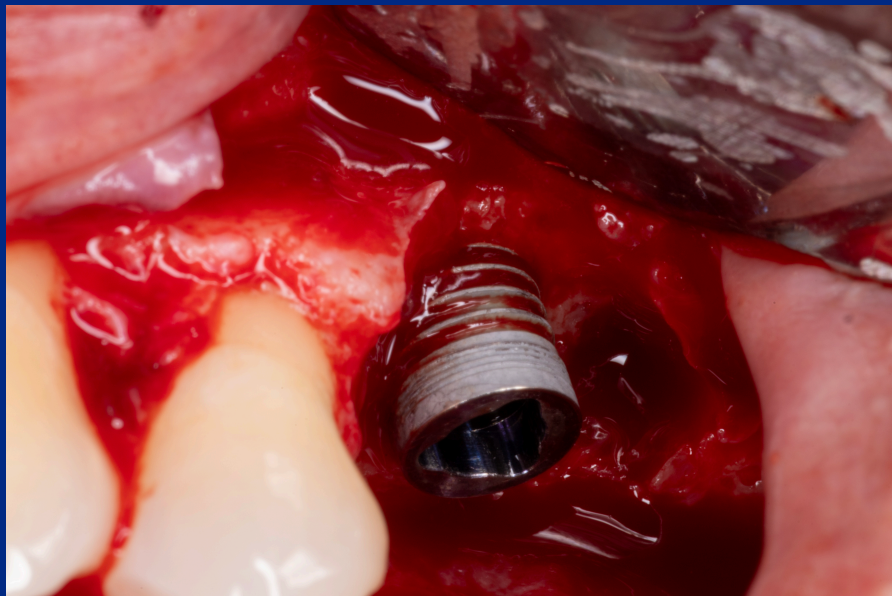
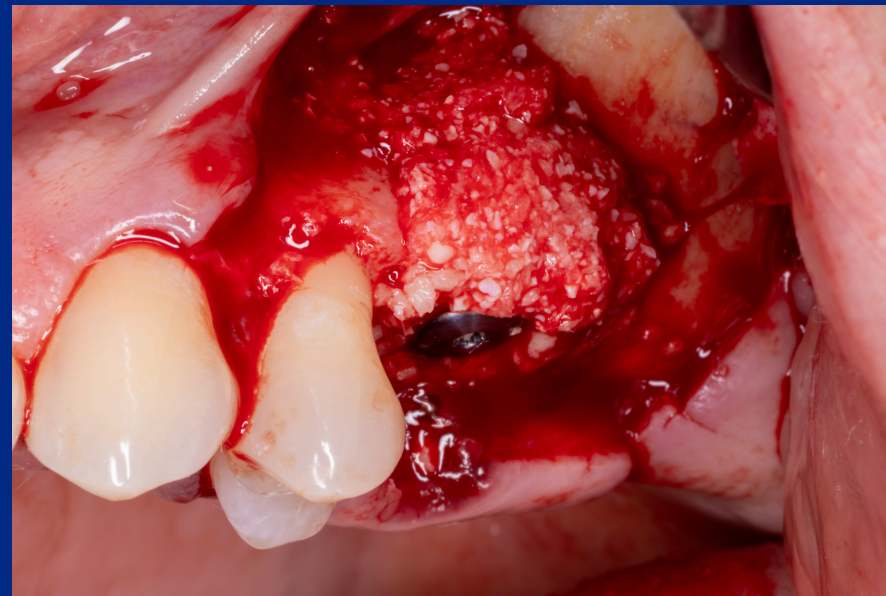
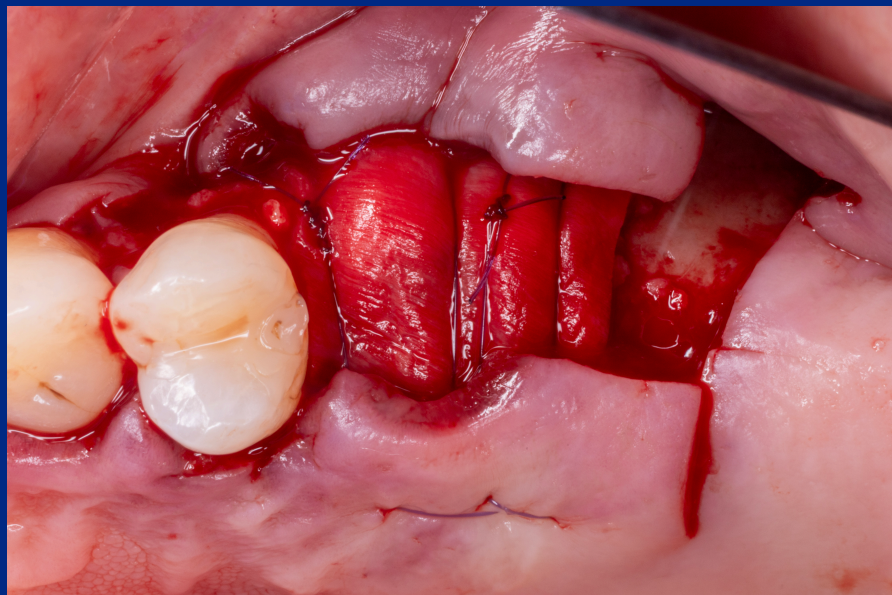
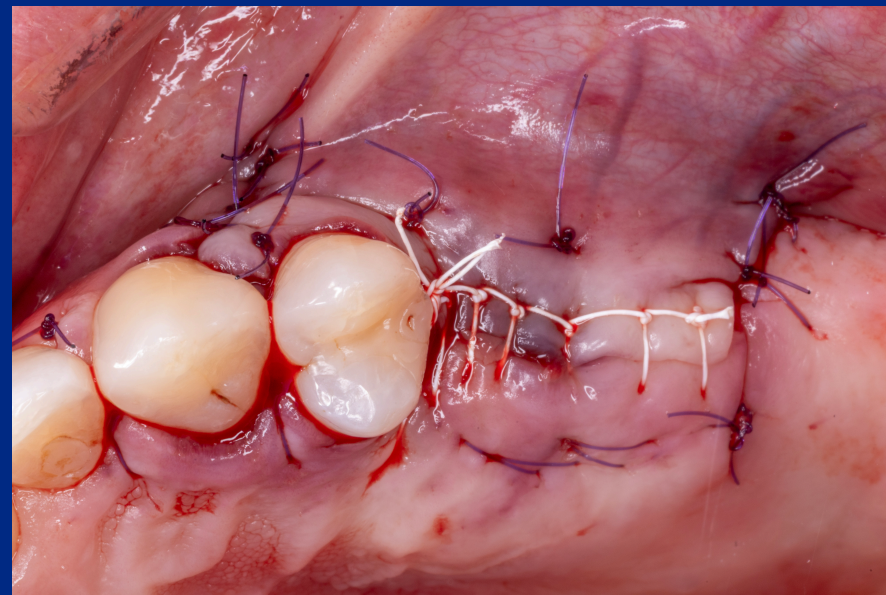
YASH DESAI¹, MARIA HERNANDEZ¹

¹Department of Periodontology, College of Dental Medicine, Nova Southeastern University, Fort Lauderdale, FL

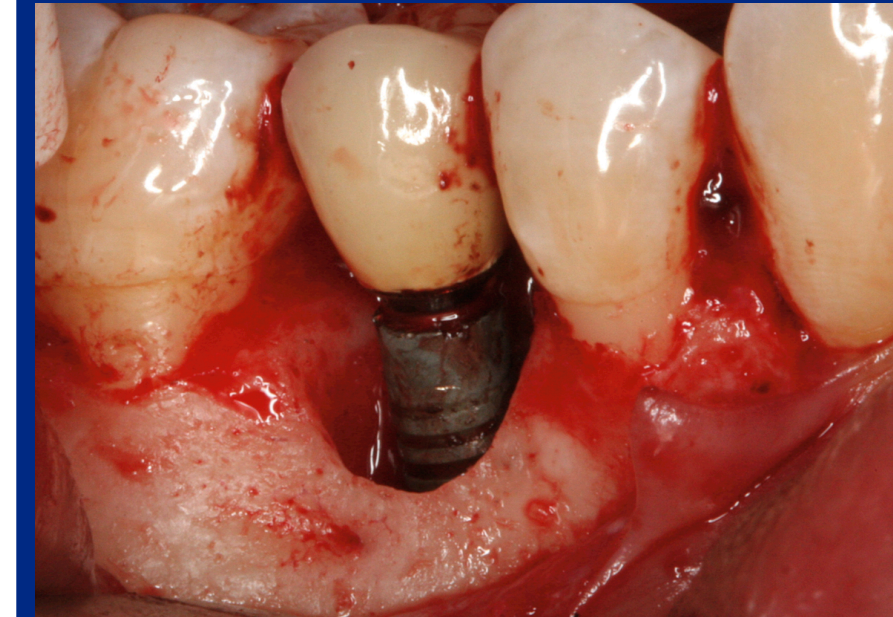
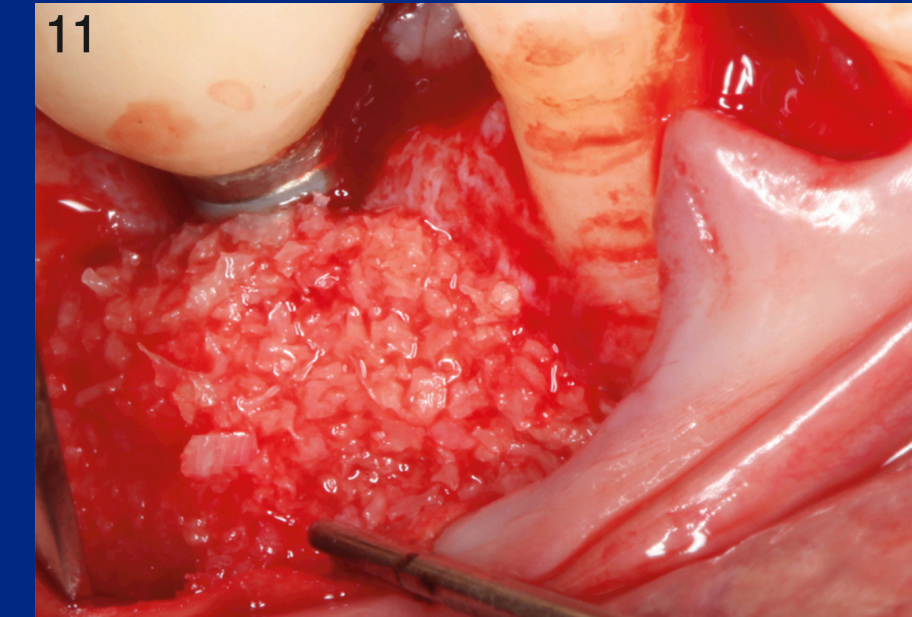
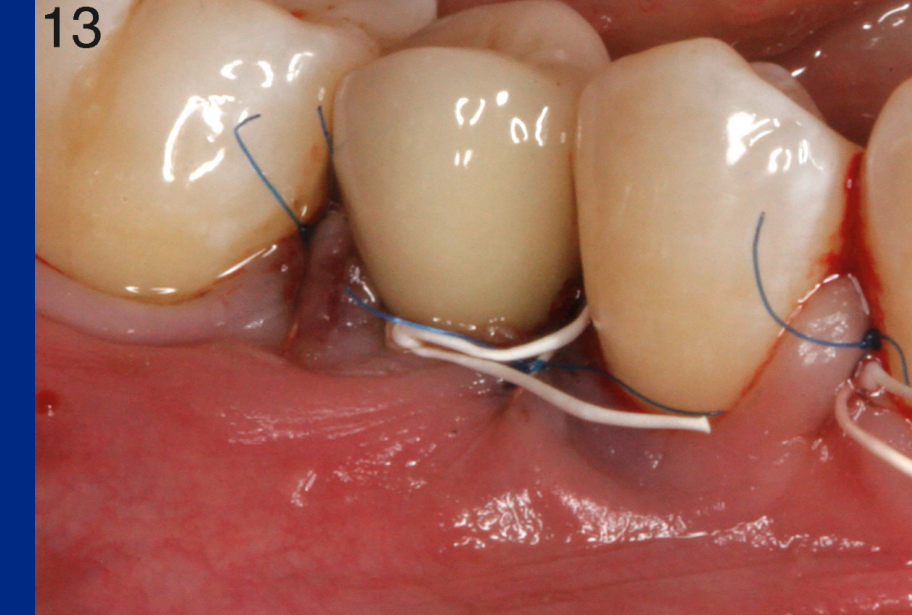
INTRODUCTION

Biological complications of osseointegrated implants are a significant focus in implant dentistry. Surgical management of peri-implantitis may involve either resective or regenerative strategies, with the regenerative approach utilizing either a submerged or non-submerged healing process. The objective of this study is to evaluate the outcomes of peri-implantitis regenerative procedures via submerged and non-submerged healing approaches.

Submerged Approach



Non-submerged Approach



Önder Solakoglu, Andreas Filippi; Regenerative Therapy of Peri-Implantitis: Clinical and Radiologic Documentation of 16 Consecutive Patients With a Mean Follow-Up of 3 Years. J Oral Implantol 1 April 2019; 45 (2): 145–153.

Materials and Methods

A retrospective chart review was performed for patients treated for regenerative treatment of peri-implantitis at NSU's PG clinics. Electronic health records were screened and cases were excluded if records were incomplete or if radiographs lacked clear implant thread visibility needed to assess outcomes before and after treatment. Periodontal probing depths and radiographic bone levels were recorded both before treatment and at least six months afterward. Comparisons were made between patients treated using a submerged versus non-submerged approach.

Results	Non-submerged (N=28)	Submerged (N=14)	P-value
Mesial RBL PRE (mm) Mean (SD)	4.00 (1.59)	3.79 (1.53)	0.742
Distal RBL PRE (mm) Mean (SD)	4.46 (1.60)	3.43 (1.50)	0.054
Mesial RBL POST (mm) Mean (SD)	2.18 (1.83)	0.929 (0.829)	0.031*
Distal RBL POST (mm) Mean (SD)	2.57 (1.83)	1.50 (0.650)	0.068
Mesial Bone Defect Resolution (%) Mean (SD)	44.3 (35.6)	62.6 (33.1)	0.130
Distal Bone Defect Resolution (%) Mean (SD)	42.2 (30.8)	51.1 (25.1)	0.391
PPD PRE (mm) Mean (SD)	5.71 (1.59)	5.09 (1.53)	0.364
PPD POST (mm) Mean (SD)	3.79 (1.57)	3.38 (1.08)	0.609
PPD Reduction (mm) Mean (SD)	1.92 (1.73)	1.71 (1.49)	0.843

Conclusion

Submerged healing led to a statistically significant improvement in mesial radiographic bone levels post-operatively compared to non-submerged healing. Both methods contributed to a reduction in periodontal probing depths, though the difference between them was not statistically significant.