

A 12 Months Preliminary Prospective Radiographic Evaluation of Peri-implant Bone Maintenance on Implants with Frictional Morse Taper Prosthetic Connection and Platform Switching

Kalil, E.C¹ ; Dottore A.M¹; Motta, L.², ; Bussadori, S.K²

¹ - Oral Surgery and Implantology Departmant, Nove de Julho University - São Paulo, Brazil ² - Post Graduation Program Nove de Julho University - São Paulo, Brazil

ABSTRACT

Objective: This preliminary prospective trial evaluated radiographically the remodeling of the peri-implant bone crest in frictional morse taper prosthetic connection implants with platform switching, after 12 months of prosthetic loading.

Materials and methods: 16 implants Arcsys™ System, FGM Brazil, were installed in 10 patients, rehabilitated with partial, single and multiple metal-ceramic prostheses, submitted to prosthetic function within 12 months.

Periapical radiographs to measure the distance between the mesial and distal marginal bone crest and the platform of each implant were taken at the time of prosthesis installation and 12 months afterwards. The images obtained at different intervals were digitalized and analyzed using *Image J* software TM.

Results: At the time of prosthesis installation, the mean distal and mesial measurements were 0.57 ± 0.45 mm and 0.55mm ± 0.41, respectively.

After 12 months in function, the averages obtained were 0.59 ± 0.48 mm on the distal surface and 0.57 ± 0.34 mm on the mesial surface.

Conclusion: In this radiographic evaluation, it was possible to observe that implants with frictional morse taper prosthetic connection and platform switching presented an average of 0.2mm of cervical bone remodeling after 12 months in function, seeming to be a good alternative for peri-implant bone maintenance.

Measurements	Mean	N	Standard deviation	Standard error	I C (95%)	p-value
Distal before	0,57744	16	0,452752	0,113188	-0,91-0, 48	0,518
Distal after	0,59919	16	0,483299	0,120825		
Mesial before	0,55650	16	0,411294	0,102824	-0,93-0, 58	0,636
Mesial after	0,57369	16	0,345097	0,086274		

There was no statistically significant difference between initial and final in the measurement, neither mesial nor distal (p> 0.05).



Fig. 1 - Implant Placement

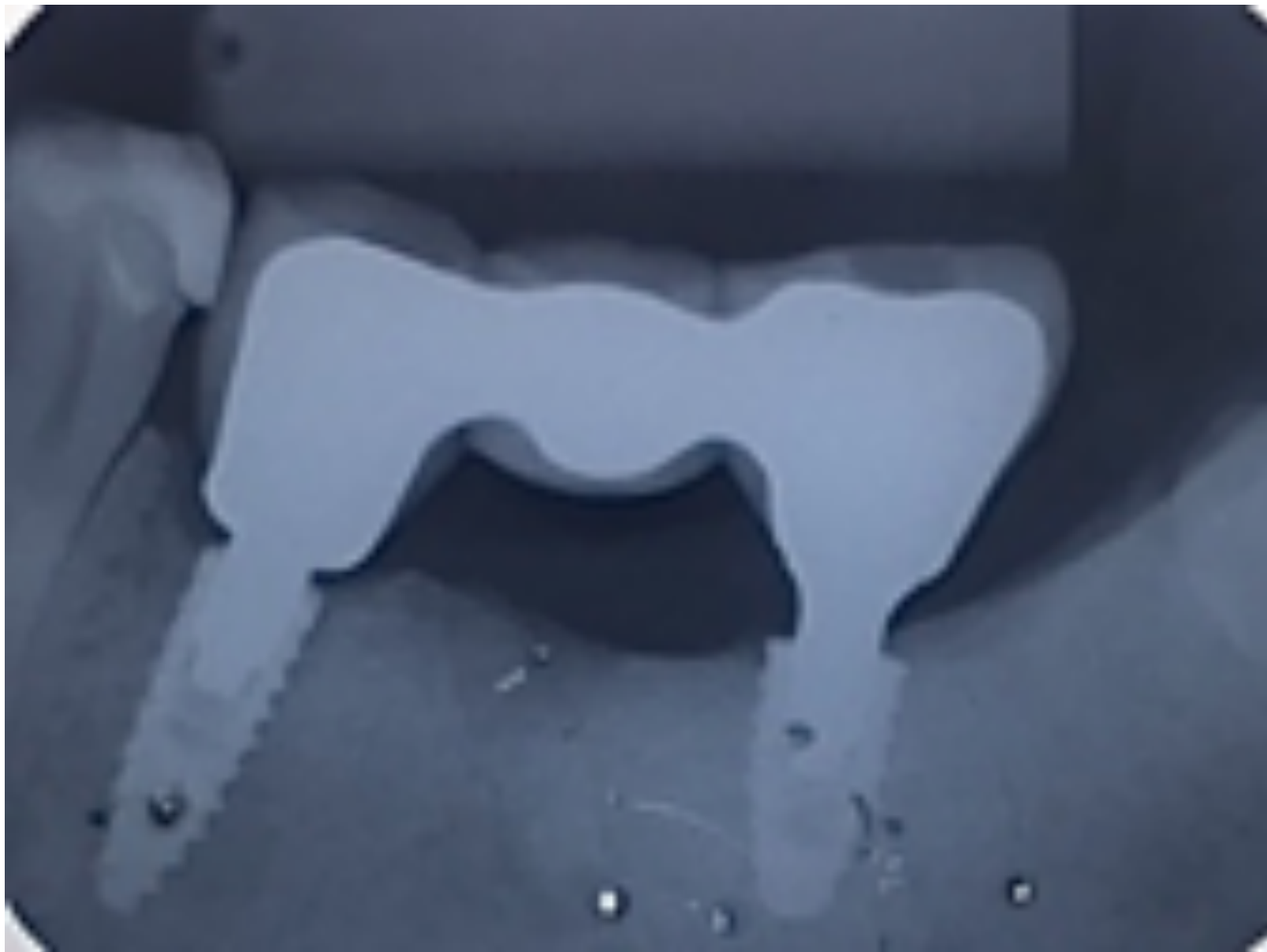


Fig. 2 - Moment of prosthesis installation



Fig. 4 - moment of measurement of the distance from the mesial bone crest to the implant platform, in the Image J software.

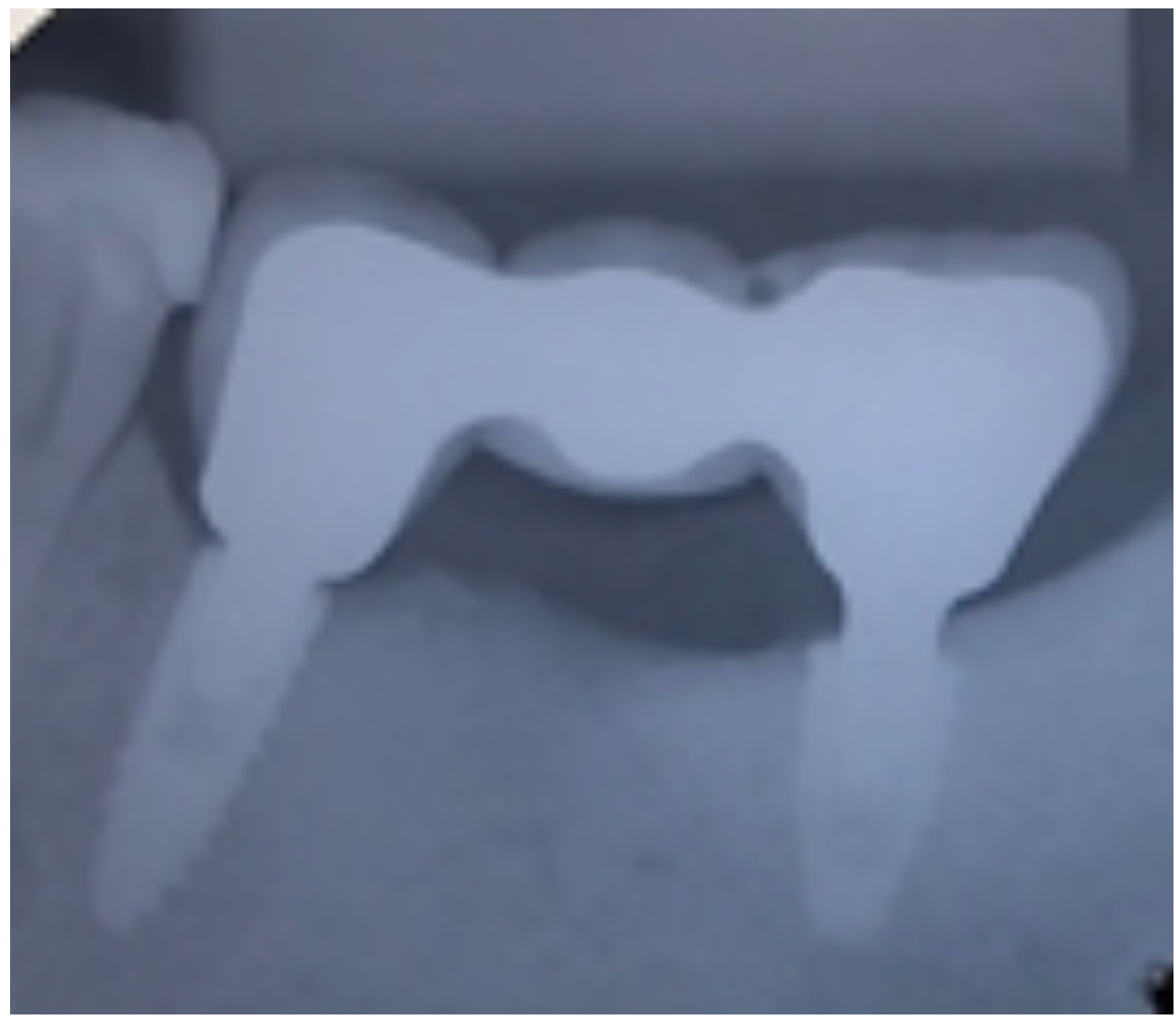


Fig. 3 -12 months after prosthesis installation