

MANAGEMENT OF SOFT TISSUES AROUND DENTAL IMPLANTS

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Introduction: The absence of sufficient width and thickness of keratinized gingiva around dental implants creates conditions for development of microbial flora with appearance of peri-implantitis. At the 2nd stage of implants surgery the intervention are performed on the mucogingival tissues in order to avoid further complications.

In case of soft tissue deficiency around dental implants selection of surgical soft tissue augmentation technique is very important to obtain good aesthetic results.

Basically, three different methods can be applied to augment peri-implant soft tissue:

1. Apically positioned flap/vestibuloplasty (in combination with a free gingival graft) FGG.
2. Mucogingival surgery with free gingival graft (FGG).
3. Soft tissue volume gain by means of a subepithelial connective tissue graft (SCTG).

The recent systematic reviews concluded that an inadequate width of peri-implant keratinized tissue is associated with more plaque accumulation, signs of inflammation, soft tissue recession, and attachment loss.

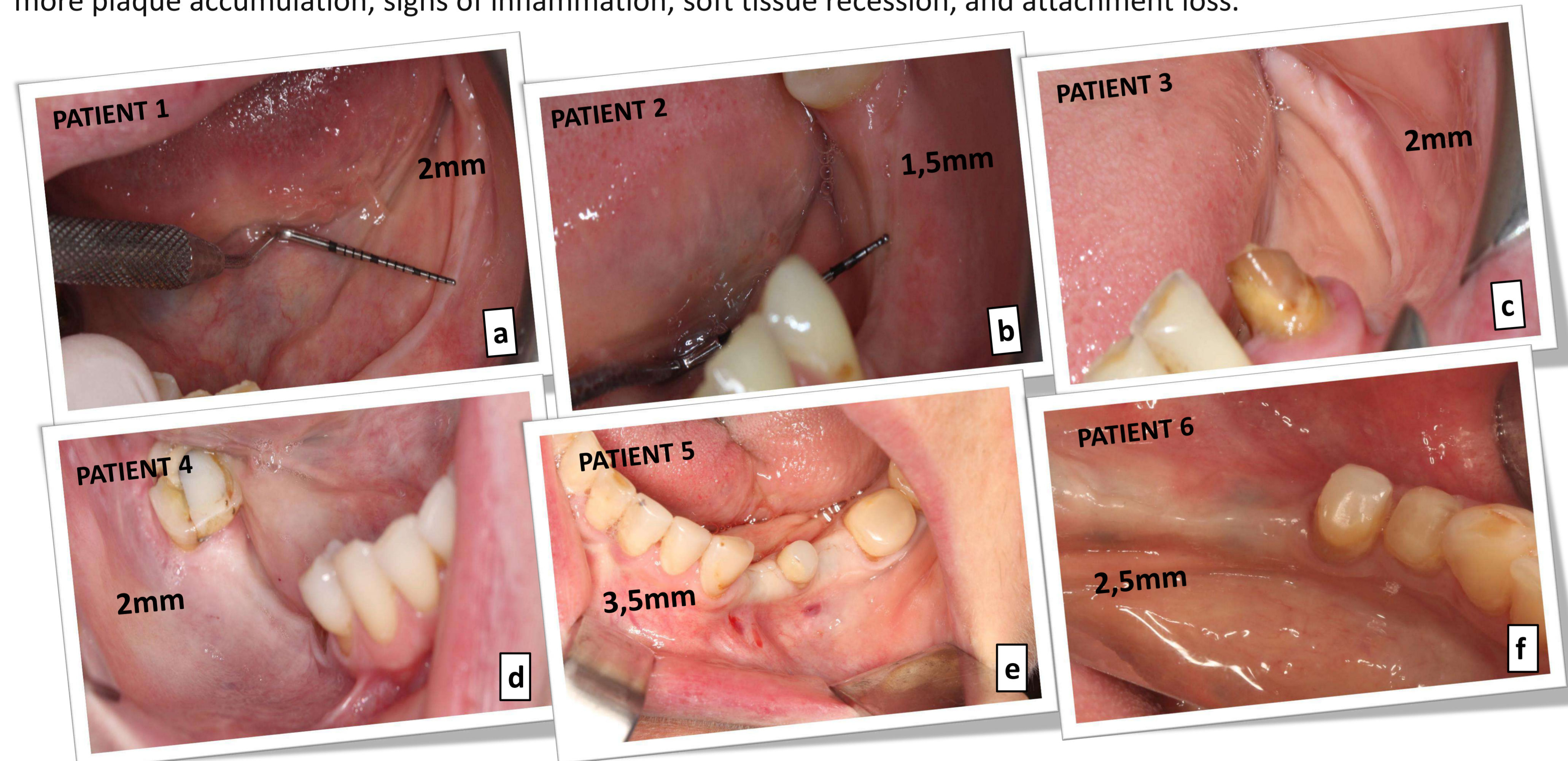


Fig 1. a-f. Examination of the muco gingival support of the edentulous alveolar ridge in various clinical situations, rehabilitated with endosseous dental implants (endobuccal aspect), establish the thin gingival phenotype (periodontal probe measurements) insufficient width of the muco gingival support.

Keywords: Vestibuloplasty, FGG-free gingival graft, periimplant tissue.

Purpose: Assessment of the condition of soft peri-implant tissue and prove evidence of surgical interventions on the mucogingival substrate at the 2nd stage of implant surgery.

Bibliography:

1. Sîrbu D., Topalo V., Strîșca S. ș. a. Aspecte ale tratamentului chirurgical în afecțiunile parodontiului marginal. În: Medicina Stomatologică. 2016, nr. 1-2 (38-39), p. 24-32. ISSN 1857-1328.
2. Linkevicius T, Apse P, Grybauskas S et al (2009) The influence of soft tissue thickness on crestal bone changes around implants a 1- year prospective controlled clinical trial. Int J Oral Maxillofac Implants 24:712–719

Material and methods: The study contains seven women with age between 24-64 years with medium of 43,23 years. The methods used: The vestibuloplasty, in combination with free gingival graft-FGG on four patients; subepithelial graft on two of them and FGG on one patient, in sum were performed 22 implants. The data obtained from the clinic and radiologic research's were operated in the programs: Sidexis 4.2 and Excel.

B	C	D	E	F	G	H	I	J	K	L
Nr de implante	Tipul implantului	Metoda Folosită	Latime	Grosime	Vestibulul bucal	Zona donor	latime ob	grosime ob	conf+greafa	
44	2 Any Ridge	SCTG	2	1	5 palat	7	3 da			
54	6 Any Ridge	APPTF+ FGG	2	1	5 palat	7	3 da			
64	2 Any Ridge	SCTG	3	1,5	5 tuber	6	3 da			
49	2 Dentium	APPTF+ FGG	2	1	5 palat	6	3 nu			
24	1 Dentium	FGG	3	1,5	6 palat	6	4 da			
33	3 Any Ridge	APPTF+ FGG	2	1	5 palat	6	4 nu			
33	6 Any Ridge	APPTF+ FGG	2	1	5 palat	6	3 nu			
43	22		2,285714286	1,142857143	5,142857143	6,285714286	3,285714286			

Table 1. Distribution of patients according to the method used, the research criteria and the results obtained.

Results: The medium height of the pre-operatively gum - 2,28mm, post-operatively- 6,28mm; medium thickness of the pre-operatively-1,14mm, post-operatively 3,28mm; buccal vestibule with the medium depth of pre-operatively - 2,4 mm post-operatively - 5,14mm. Donor zone: rough palatal 6 cases, tuberosity 1 case. Complications were not discovered in neither of cases. The displaying of the implants in 4 cases was followed by a surgery on the mucogingival substrate and in another 3 cases was performed delayed.

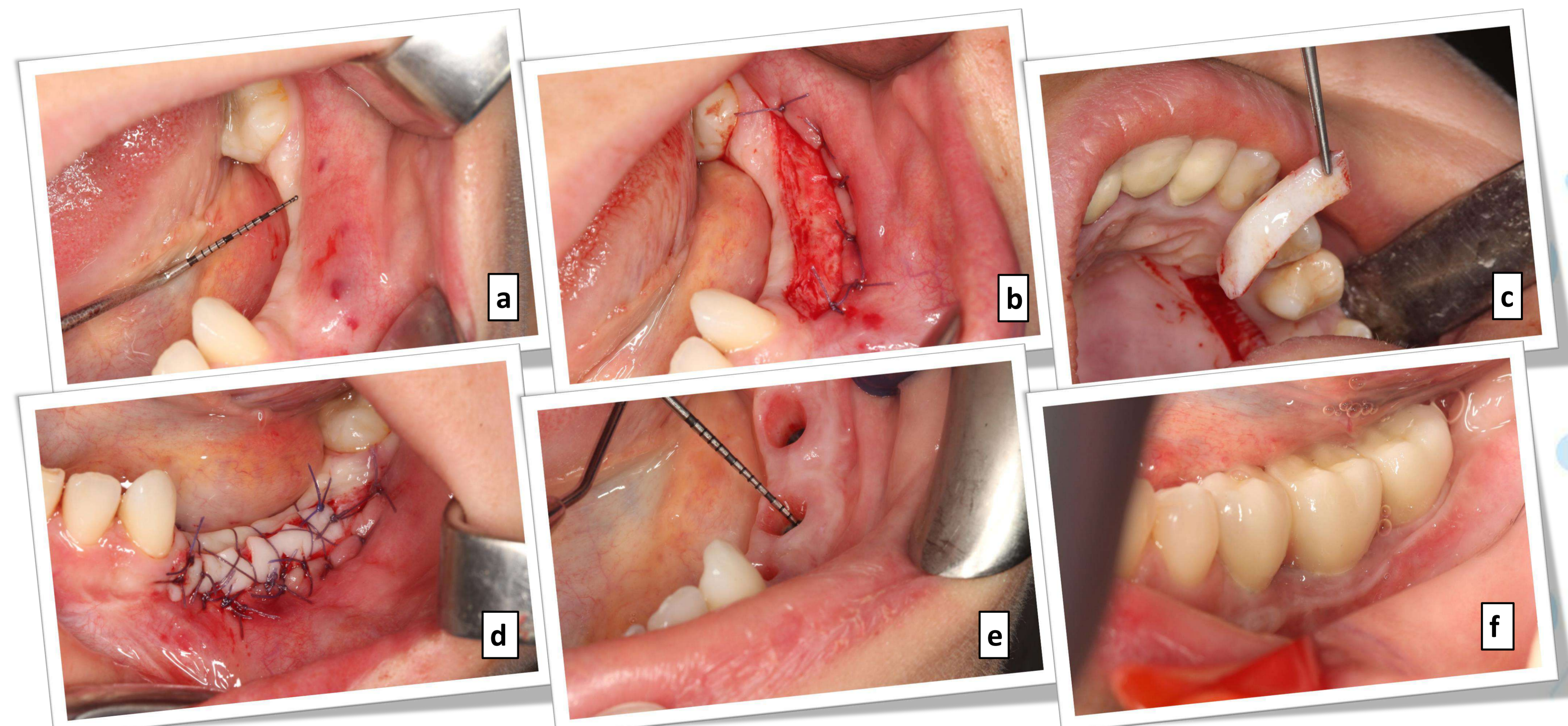


Fig 8. Increasing the muco-gingival supply (keratinized tissue) using APPTF + FGG technique in the D.G. patient. a. measurements of edentulous alveolar ridge with periodontal probe. b. apically positioned flap. c. free gingival graft harvested from left palatal side. d. fixing the graft with absorbable sutures. e. the aspect of the mucogingival support (periimplant emergency profile) after the removal of healing caps. f.-final construction.

Conclusions: At the 2nd stage of implant surgery, interventions at mucogingival substrate are indicated in order to obtain a morphofunctional and aesthetic long term results.