

Soft-tissue substitute versus autologous tissue

Enhancing vestibular depth and tissue thickness with porcine-derived acellular dermal matrix to ensure peri-implant health—a case report

Dr Yazad Gandhi, India

Literature

1. Thoma DS, Naenni N, Figuero E, Hämmerle CH, Schwarz F, Jung RE, Sanz-Sánchez I. Effects of soft tissue augmentation procedures on peri-implant health or disease: a systematic review and meta-analysis. *Clin Oral Implants Res.* 2018 Mar;29 Suppl 15:32–49. doi: 10.1111/clr.13114.
2. Linkevicius T, Apse P, Grybauskas S, Puisys A. Reaction of crestal bone around implants depending on mucosal tissue thickness. A 1-year prospective clinical study. *Stomatologija.* 2009;11(3):83–91.
3. Wennström JL, Derks J. Is there a need for keratinized mucosa around implants to maintain health and tissue stability? *Clin Oral Implants Res.* 2012 Oct;23 Suppl 6:136–46. doi: 10.1111/j.1600-0501.2012.02540.x.
4. Halperin-Sternfeld M, Zigdon-Giladi H, Machtei EE. The association between shallow vestibular depth and peri-implant parameters: a retrospective 6 years longitudinal study. *J Clin Periodontol.* 2016 Mar;43(3):305–10. doi: 10.1111/jcpe.12504.
5. Lim HC, An SC, Lee DW. A retrospective comparison of three modalities for vestibuloplasty in the posterior mandible: apically positioned flap only vs. free gingival graft vs. collagen matrix. *Clin Oral Investig.* 2018 Jun;22(5):2121–8. doi: 10.1007/s00784-017-2320-y.
6. Herford AS, Akin L, Cicciu M, Maiorana C, Boyne PJ. Use of a porcine collagen matrix as an alternative to autogenous tissue for grafting oral soft tissue defects. *J Oral Maxillofac Surg.* 2010 Jul;68(7):1463–70. doi: 10.1016/j.joms.2010.02.054.
7. Anderson LE, Inglehart MR, El-Kholy K, Eber R, Wang HL. Implant associated soft tissue defects in the anterior maxilla: a randomized control trial comparing subepithelial connective tissue graft and acellular dermal matrix allograft. *Implant Dent.* 2014 Aug;23(4):416–25. doi: 10.1097/id.0000000000000122.
8. Cairo F, Barbato L, Tonelli P, Batalocco G, Pagavino G, Nieri M. Xenogeneic collagen matrix versus connective tissue graft for buccal soft tissue augmentation at implant site. A randomized, controlled clinical trial. *J Clin Periodontol.* 2017 Jul;44(7):769–76. doi: 10.1111/jcpe.12750.
9. De Annunziis C, Testarelli L, Guarnieri R. Use of xenogenic collagen matrices in peri-implant soft tissue volume augmentation: a critical review on the current evidence and new technique presentation. *Materials (Basel).* 2022 May 31;15(11):3937. doi: 10.3390/ma15113937.
10. Caballé-Serrano J, Zhang S, Sculean A, Staehli A, Bosshardt DD. Tissue integration and degradation of a porous collagen-based scaffold used for soft tissue augmentation. *Materials (Basel).* 2020 May 25;13(10):2420. doi: 10.3390/ma13102420.

11. Imber JC, Bosshardt DD, Stähli A, Saulacic N, Deschner J, Sculean A. Pre-clinical evaluation of the effect of a volume-stable collagen matrix on periodontal regeneration in two-wall intrabony defects. *J Clin Periodontol*. 2021 Apr;48(4):560–9. doi: 10.1111/jcpe.13426.
12. Tavelli L, McGuire MK, Zucchelli G, Rasperini G, Feinberg SE, Wang HL, Giannobile WV. Extracellular matrix-based scaffolding technologies for periodontal and peri-implant soft tissue regeneration. *J Periodontol*. 2020 Jan;91(1):17–25. doi: 10.1002/jper.19-0351.
13. Sandor M, Leamy P, Assan P, Hoonjan A, Huang LT, Edwards M, Zuo W, Li H, Xu H. Relevant in vitro predictors of human acellular dermal matrix-associated inflammation and capsule formation in a nonhuman primate subcutaneous tissue expander model. *Eplasty*. 2017 Jan 5;17:e1.
14. Sandor M, Xu H, Connor J, Lombardi J, Harper JR, Silverman RP, McQuillan DJ. Host response to implanted porcine-derived biologic materials in a primate model of abdominal wall repair. *Tissue Eng Part A*. 2008 Dec;14(12):2021–31. doi: 10.1089/ten.tea.2007.0317.