

## **SURGICAL PROCEDURES FOR SOFT TISSUE AUGMENTATION AT IMPLANT SITE. A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMIZED CLINICAL TRIALS**

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### **Background and Purpose:**

The aim of this Systematic Review (SR) is to assess the current evidence on soft tissue augmentation procedures at implant site.

### **Methods:**

Manual and electronic database searches were performed up to October, 10 2017 to identify randomized clinical trials (RCTs) comparing different techniques for augmentation of periimplant soft tissue. Two investigators extracted data independently. The Cochrane tool was used for evaluation of data quality.

### **Results:**

A total of 13 RCTs accounting for 439 patients and 462 implants were enclosed in this SR. Three clusters of studies were identified: a. soft tissue augmentation before prosthetic treatment (five RCTs); b. soft tissue augmentation after prosthetic treatment (five RCTs); c. soft tissue augmentation at post-extraction implants (three RCTs). Only five studies were judged as at low risk of bias; four RCTs were included in two meta-analyses. Connective Tissue Graft (CTG) was more effective than Xenogeneic Collagen Matrix (XCM) to improve soft tissue thickness before prosthetic treatment (MD: -0.30mm; 95% CI -0.43; -0.17; p<0.00001). Furthermore, buccal CTG was associated with higher bone level stability than no soft tissue augmentation after post-extractive implants (MD: -0.10mm; 95% CI -0.14; -0.06; p<0.0001).

### **Interpretation:**

The evidence is limited, however initial data showed the benefit in adding CTG to improve peri-implant soft tissue thickness and promote bone levels stability after post-extractive implants.