Suitability of the anterolateral thigh perforator flap and the soleus perforator flap for intraoral reconstruction: a retrospective study.

Abstract:
Perforator flaps are suitable for numerous reconstructive purposes. However, there are few data about their usefulness for intraoral reconstruction. We reviewed data of 101 patients who were reconstructed by two types of perforator flaps after oral cancer. Forty-six soleus perforator flaps and fifty-five anterolateral thigh (ALT) perforator flaps were performed. Procedural data and outcome measures were analyzed. One ALT and four soleus perforator flaps were lost, resulting in success rates of 97.8% and 91.4%, respectively. Soleus perforator flaps were more challenging due to short and small-caliber vessels, higher susceptibility to vascular spasm, and difficult prediction of the location of the vascular pedicle. All donor sites in both groups except one were closed directly, and their morbidity was negligible. Perforator flaps from both donor sites can be used for intraoral reconstruction with good functional results; however, despite primary thinning, the ALT flap can be voluminous in small and flat defects. Here, soleus perforator flaps adapt better to the oral mucosa. The ALT perforator flap is more reliable and serves as a safe alternative to the radial forearm flap.