

The Platysma Myocutaneous Flap



Dale A. Baur, DDS, MD^{a,*}, Jonathan Williams, DMD, MD^a, Xena Alakaily, DDS^b

KEYWORDS

• Reconstruction • Platysma flap • Local flap • Defects of oral cavity

KEY POINTS

- The platysma myocutaneous flap is a reliable and versatile tool of head and neck reconstruction.
- The platysma myocutaneous flap includes good color match, easy access to the donor site in the same operative field, minimal donor site morbidity, ease in closing the donor site primarily, and appropriate flap thickness for most oral or facial defects.
- Use of this flap results in minimal contour and mobility changes of the neck.
- Defects of the oral cavity in the range of 50 to 75 cm² can be reconstructed with the platysma myocutaneous flap.

Reconstructing defects of the oral mucosa or skin of the lower one-third of the face can be accomplished by a variety of techniques. Presented herein are two versions of the platysma myocutaneous flap, which is a reliable, axial pattern, pedicled flap capable of providing excellent one-stage reconstruction of such defects. Also included is a review of other uses of this flap in head and neck surgery. The advantages of the platysma flap include good color match, easy access to the donor site in the same operative field, minimal donor site morbidity, ease in closing the donor site primarily, and appropriate flap thickness for most oral or facial defects.¹ In general, defects of the oral cavity in the range of 50 to 75 cm² can be reconstructed with the platysma myocutaneous flap.² Use of this flap results in minimal contour and mobility changes of the neck. Donor site scarring is minimal and well accepted. The platysma flap can be used reliably even when an ipsilateral neck dissection is performed, as long as the surgeon takes care to preserve the vascular pedicle during the dissection. When compared with the radial forearm microvascular free flap, the platysma flap has a better color

match, can be harvested in much less time, and has significantly less donor site morbidity.³ When compared with the pectoralis major myocutaneous flap, the platysma flap is less bulky, has a better color match to facial skin, and is faster and easier to harvest with less morbidity.

Based on the dominant blood supply, there are three different variations of the platysma flap. The inferiorly based flap, with an arterial supply from the transverse cervical artery, has no application in oral and facial reconstruction.³ As discussed herein, the superiorly based and posteriorly based versions of the flap have wide application in the oral and facial region. In addition to their use in reconstructing oral and facial extirpative defects, these flaps can be used for reconstruction of the lip, ear, pharynx, and trachea. Other uses include hypopharyngeal strictures and additional tissue bulk for mild cases of facial hypoplasia. Contraindications to using these flaps include previous radiation treatment to the neck and previous surgical procedures to the neck in which the dominant blood supply has been violated or the muscle previously transected.

No financial disclosures for any of the authors.

^a Department of Oral and Maxillofacial Surgery, University Hospitals of Cleveland, Case Western Reserve University, 2124 Cornell Road, Cleveland, OH 44106–4905, USA; ^b Department of Oral and Maxillofacial Surgery, Case Western Reserve University, 2124 Cornell Road, Cleveland, OH 44106–4905, USA

* Corresponding author.

E-mail address: Dale.baur@case.edu

Oral Maxillofacial Surg Clin N Am 26 (2014) 381–387

<http://dx.doi.org/10.1016/j.coms.2014.05.006>

1042-3699/14/\$ – see front matter © 2014 Elsevier Inc. All rights reserved.

ANATOMY

The awake patient can actively demonstrate the anatomy and extent of the platysma muscle by lifting the chin and grimacing. The thin, quadrangular-shaped, paired platysma muscles (**Fig. 1**) lie in the superficial fascia of the neck.⁴ They are derived from second brachial arch. The muscle originates from the superficial fascia of the pectoral and deltoid muscles, coursing obliquely over the clavicle to its insertion at the corner of the mouth and inferior part of the cheek.⁵ It is absent in the midline of the neck and the superior portion of the posterior triangle. Immediately deep to the platysma is the superficial layer of the deep cervical fascia. Fibers of the platysma insert with the angle of the mandible and depressor muscles of the lip and chin. The anterior fibers decussate over the chin with the contralateral platysma. When the muscle contracts, it pulls the corner of the mouth inferiorly and laterally, partially contributing to mouth opening.³

The submental branch of the facial artery provides arterial blood superiorly. The submental artery is the largest branch of the facial artery providing the most plentiful blood supply to a superiorly based flap.⁵ Branches of the transverse cervical artery supply the platysma muscle inferiorly. From the posterior triangle of the neck, the muscle receives branches from the occipital and posterior auricular arteries. The superior thyroid artery perfuses the muscle from the anterior triangle of the neck.⁵ Fasciocutaneous arterial perforators from the muscle itself supply the overlying skin. At the posterior extent of the muscle lies the external jugular vein, providing for venous drainage. The anterior jugular veins, the submental vein, and the anterior communicating veins also contribute to venous drainage.³ Innervation of the platysma muscle is from the cervical branch of the seventh cranial nerve. These branches are generally multiple and enter the muscle on the deep surface from a superior direction in the

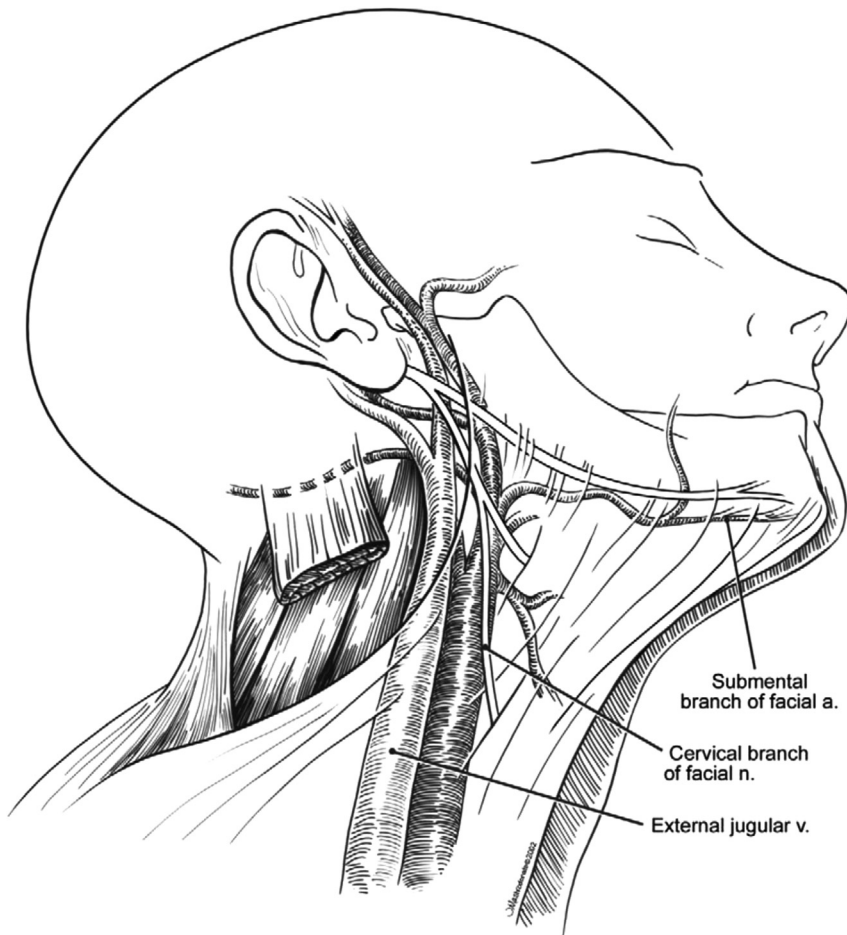


Fig. 1. Diagram of the platysma muscle with associated structures. (From Baur DA. The platysma myocutaneous flap. *Oral Maxillofac Clin North Am* 2003;15(4):559–64.)

Download English Version:

<https://daneshyari.com/en/article/3163043>

Download Persian Version:

<https://daneshyari.com/article/3163043>

[Daneshyari.com](https://daneshyari.com)