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COMMENTARY & DISCUSSION

Discussion—Cervico-Mental Angle Suspensory Ligament: The Keystone to Understand the Cervico-Mental Angle and the Aging Process of the Neck

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Abstract This is a commentary and discussion in response to a cadaveric study entitled, "Cervico-mental angle suspensory ligament: The keystone to understand the cervico-mental angle and the aging process of the neck." While highlighting the cervico-mental angle suspensory ligament has the potential to give rise to new surgical technique in neck rejuvenation surgery, the authors caution readers of the study's major limitation. Without well-documented results aligning with aesthetic ideals or reports of the safety and longevity of the procedure, it seems too early to consider this ligament the keystone to understand the aging neck. An actual surgical technique must be described and further clinical studies need to be performed before this ligament can be included in the armamentarium of neck rejuvenation surgery. As the goal of surgery should be a natural result that restores aesthetic ideals of the youthful neck, regardless of the significance that this ligament will carry, its application should be tailored to the patient to avoid overly aggressive treatment.

Level of evidence V This journal requires that authors assign a level of evidence to each article. For a full description of these Evidence-Based Medicine ratings, please refer to the Table of Contents or the online Instructions to Authors www.springer.com/00266.

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The surgical techniques of neck rejuvenation surgery have been developed with the intent of creating a youthful neck aesthetic. This aesthetic was characterized in 1980 by Ellenbogen and Karlin who published standard criteria for the youthful neck: (1) distinct inferior mandibular border, (2) subhyoid depression, (3) visible thyroid cartilage bulge, (4) visible anterior sternocleidomastoid border, and (5) cervico-mental angle between 105° and 120° [1]. This dogma has been repeatedly cited as pioneers in the field have published their techniques to achieve these criteria.

With the development of such an arsenal of surgical techniques over the years, the practicing surgeon must ultimately adopt those that they can perform safely while producing an excellent result. It is paramount that each patient is addressed on an individual basis so that their treatment is tailored to their needs. The art of facial rejuvenation lies in the nuances, making cookie cutter surgery unacceptable. In our opinion, a major pitfall of neck rejuvenation is surgery that is overly aggressive. This produces the overdone result that does not align with the natural aesthetic of a youthful neck. Being familiar with the patient's anatomy and attentive to the features that need to be addressed can certainly improve the surgical outcome and patient satisfaction.

The authors of this study aim to educate their readers on the "Cervico-mental angle suspensory ligament: The keystone to understand the cervico-mental angle and the aging process of the neck." Labbé et al. present a cadaveric anatomical study that introduces the cervico-mental angle

suspensory ligament. In their experience, this ligament was found consistently in six fresh cadaver dissections, running from the styloid process of the temporal bone to the lesser cornu of the hyoid bone, and was found to have attachments to overlying platysma and skin. The authors highlight the excursion of the ligament to show the axes of freedom that its mobility provides.

The authors should be commended for conducting this study as it seeks to achieve a better understanding of the structural components of the neck that are affected by aging. We find that the salient points of this study are the reproducibility of the anatomy in cadaveric dissection as well as the theoretical potential of using this ligament in altering the neck contour. At this point, it is purely theoretical.

While the authors allude to the application of the cervico-mental angle suspensory ligament in neck rejuvenation, the major weakness is that there is no clear clinical role that can be deduced from this study as no clinical cases are presented. In their Fig. 6, the illustration depicts an imagined outcome of lateral traction of the ligament where the cervico-mental angle appears more acute. This is not fully re-created on a fresh cadaver model to corroborate the claim of the illustration and there is no mention of the authors having experience with this result in patients. Without any convincing data showing the efficacy, safety, and longevity of this ligamentous suspension in restoring a more youthful-appearing neck, it would be unreasonable to rely on this study to change one's practice.

As with any advancement in medicine, ideas beget ideas. Now that the cervico-mental angle suspensory ligament has been described, we hope that attention will be placed toward finding a surgical application for it that optimizes a natural result. We very much look forward to the next iteration of this study.

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Reference

1. Ellenbogen R, Karlin JV (1980) Visual criteria for success in restoring the youthful neck. Plast Reconstr Surg 66(6):826–837