

Over-tightened Neck

According to the American Society of Plastic Surgeons, the face lift, often combined with a neck lift, was the second most common cosmetic surgical procedure in 2022

Neck lift procedures are intended to rejuvenate the neck by tightening the underlying muscles and reducing or relocating volume, laxity, or redundancy in the tissue

- ❖ An overtightened appearance is a major concern for patients considering a face or neck lift
- ❖ Little to no literature on the incidence/prevention of overtightening
- ❖ Causes of an excessive tightness: extreme platysmaplasty, extreme skin tightening to eliminate visible submandibular glands, use of an anterior sling suture
- ❖ Risk factors for excessive tightness: thin skin on neck, fatty necks, laxity at angle of mandible

Aim

The aim of this study is to determine the incidence of overtightening in cosmetic neck lifts.

Retrospective Cohort Study

Chart Review:

213 Consecutive Patients who underwent rhytidectomy

January 2013-September 2022

Single Institution

Patient Demographics, Comorbidities, Past Surgical History, Complications

Results

Characteristic	Value
Total	213
Age mean (SD)	63.69 (8.35)
Gender	
Female	198 (93)
Male	15 (7)
Race n (%)	
White	197 (93)
Asian	3 (1)
Other	1 (0.47)
NS	11 (5)
Ethnicity n (%)	
Non-Hispanic	186 (99)
Hispanic	2 (1)
Alcohol Use n (%)	89 (62)
Smoker Status n (%)	
Never smoked	146 (69)
Current smoker	11 (5)
Former Smoker	56 (26)
Systemic Steroid Use n (%)	3 (1)
Comorbidities n (%)	
Cardiac Complications	22 (10)
Myocardial infraction	1 (0.47)
Renal Complications	2 (1)
COPD	6 (3)
Hypertension	48 (23)
Bleeding disorder	5 (2)
Diabetes	10 (5)

Table 1. Patient Characteristics
COPD, chronic obstructive pulmonary disease; n, frequency; NS, not specify; SD, standard deviation; %, percentage

Characteristic	Value
Hematoma	3 (1)
Seroma	8 (4)
Surgical Site Infection	2 (1)
Wound Dehiscence	0 (0)
Tightness	4 (2)
Fat Necrosis	1 (0.46)
Nerve Damage	1 (0.46)
Reoperation	7 (3)

Table 2. Surgical Complications
.

- ❖ 2% of patients experienced excessive tightness after surgery
- ❖ 7% of patients experienced post-surgical complications
- ❖ 1.4% of patients were examined with barium swallow or neck CT
- ❖ 0.68% of patients required reoperation to loosen the skin on the neck

Complications Associated with Tightness:

To insert an existing table from Excel:

- Pain
- Skin/ Fat Necrosis
- Dysphagia
- Dyspnea
- Oro-Mandibular Dystonia
- Weakness throughout a depressor muscle on one or both sides of the lip secondary to tension on the platysma muscle

Evaluation of Tightness:

- Neck MRI/CT
- Video Fluoroscopy Swallowing Exam
- Speech Pathology
- Examination for muscle spasm or neuroma

Conclusions

The overtight neck has received little attention and is rarely discussed by plastic surgeons

However, excessive tightening is a common concern amongst cosmetic surgery patients

Our data demonstrates that 2% of cosmetic neck lift patients experienced symptoms of overtightening

Overtightening can cause severe pain and speech impairment most likely caused by aggressive platysmaplasty + lateral neck plication techniques

How to Prevent Overtightening?

Adjustments: Place anterior extension of the suture to the angle of mandible (half the distance from the mastoid to the anterior neck)

Results: Less tension and decreased pulling on the mandibular-lateral neck junction

References:

1. Agha RA, Sohrai C, Mathew G, et al. The PROCESS 2020 Guideline: Updating Consensus Preferred Reporting Of CasEseries in Surgery (PROCESS) Guidelines. Int J Surg. 2020;84:231-235. doi:10.1016/j.ijsu.2020.11.005

2. American Society of Plastic Surgeons. PLASTIC SURGERY STATISTICS REPORT 2020.; 2020. <https://www.plasticsurgery.org/documents/News/Statistics/2020/plastic-surgery-statistics-full-report-2020.pdf>

3. Auersvald A, Auersvald L, Liebel CO, et al. Subplatysmal Necklift: A Retrospective Analysis of 504 Patients. Aesthetic Surgery Journal. Volume 37, Issue 1, 1 January 2017, Pages 1–11, <https://doi.org/10.1093/asj/sjw107>

4. Caplin DA, Perlyn CA. Rejuvenation of the aging neck: current principles, techniques, and newer modifications [published correction appears in Facial Plast Surg Clin North Am. 2010 Feb;18(1):v]. Facial Plast Surg Clin North Am. 2005;17(4):589-viii. doi:10.1016/j.fsc.2005.07.001

5. Dedo DD. "How I do it"-plastic surgery. Practical suggestions on facial plastic surgery. A preoperative classification of the neck for cervicofacial rhytidectomy. Laryngoscope. 1980;90(11 Pt 1):1894-1896. doi:10.1228/00005537-198011000-00020

6. Ramirez OM. Advanced considerations determining procedure selection in cervicoplasty. Part one: anatomy and aesthetics. Clin Plast Surg. 2008;35(4):679-viii. doi:10.1016/j.cps.2008.05.002