Facelift Drains and Dressings: To Be or Not to Be?

Joe Niamtu III, DMD*

The author has indicated no significant interest with commercial supporters.

Facelift surgery is a commonly requested procedure of cosmetic surgeons and is frequently accompanied by bulky postoperative dressings and, with many surgeons, surgical drains. This article describes the elimination of both.

Bulky dressings are uncomfortable, can be constrictive and affect flap viability, obscure the surgical field, and are disconcerting to the patient and family. When a facelift is performed in conjunction with full-face laser resurfacing, the external dressings can abrade the raw skin, contributing to delayed healing or scarring. No evidence shows that using post facelift dressings prevents hematomas.[1–3]

Some facelift surgeons use postoperative drains routinely in hopes of encouraging drainage and reducing hematomas, seromas, and ecchymosis. These external drains are also cumbersome and intimidating to patients and family and can be uncomfortable. The literature is conflicting, with some authors finding that drains reduce hematomas[4] and others refuting this.[3,5]

The author performed more than 120 consecutive facelift procedures over a 2-year period without the use of conventional full-face postoperative dressings, using a novel, minimally invasive "minivent" system that has eliminated postoperative seroma formation. The combination of these changes has simplified the facelift experience for the patient, surgeon, and staff, without any negative effects on surgical outcomes.

Methods

Dressings

When performing laser with concomitant facelift, the facelift dressings would abrade the depithelialized skin and various modifications were performed to make the dressings smaller and smaller until all postoperative facelift dressings were eliminated. This not only prevented abrasion of the newly lasered skin, but was also an extremely welcome change by the surgeon, the patients, and staff, without negative effects on healing or outcome. To the contrary, eliminating the conventional facelift dressing saved time and money and reduced postoperative care. It has also become a positive marketing advantage because patients are surprised and appreciative that bulky dressings are not required in my regimen (Figure 1). Not a single hematoma or seroma has been encountered in this series.

Drains

Facelift surgery is a big part of my practice, and I average two lifts per week and have performed more than 600 procedures over the past 13 years. My technique is representative of my patient

**Cosmetic Facial Surgery, Midlothian, Virginia*

ISSN: 1076-0512 • Dermatol Surg 2012;38:793–796 • DOI: 10.1111/j.1524-4725.2011.02286.x

Figure 1. (A) Conventional postoperative facelift dressing previously used by the author. (B) Facelift patient 24 hours after facelift with no dressing used. (The neck bandage is not compressive and holds absorbent gauze in place for drainage).

population, and I traditionally perform aggressive rhytidectomies with large (8 cm) flaps and concomitant midline platysmaplasty. Larger facelifts have a greater proclivity for seroma and hematoma formation. It is accepted that facelift dressings and drains do not prevent hematoma.[1–3] Despite this, many surgeons continue to use Penrose or Jackson-Pratt vacuum-assisted drain systems on their facelifts. Larger-flap facelifts tend to produce more drainage in the postoperative period. This includes residual tumescent anesthesia in the early phase and serum and blood breakdown products over the first 2 weeks. Surgeons who perform a large number of aggressive facelifts can confirm that postoperative seroma formation is common and may require repeated aspiration. With conventional drains, an obtrusive situation can exist that is intimidating to patients and families. In addition, traditional drains are usually placed in the posterior incision and may not be gravity dependent.

Capitalizing on the ability to prevent fluid accumulation without using a conventional "drain," the author has used a "minivent" system on this series of 120 facelift procedures. At the end of the facelift procedure, two 14-G (2″) intravenous catheters (Surflo 14 G, 2″ IV catheters; Terumo Medical Corporation, Somerset, NJ) are placed obliquely, lateral to the cervical midline at the level of the hyoid (Figure 2). The catheters must be placed unobstructed in the subcutaneous plane and are left in place for 24 hours.

They are taped to the skin to prevent displacement and covered with an absorbent dressing to contain the significant drainage that ensues. Fluff gauze retained using an elastic mesh dressing is placed passively (without compression) over the catheters solely to contain drainage. The patient's caretaker is given extra gauze and instructed on changing the saturated gauze. It is not uncommon to undergo two to three dressing changes on the first night after surgery. The catheter "vents," and all dressings are removed the next morning at follow-up (Figure 3). No dressing is reapplied.

Summary

In my experience, if there is anything that facelift patients dislike more than bulky dressings, it is surgical drains. Eliminating both of these from a busy facelift practice has been extremely valuable in numerous ways. The elimination of conventional facelift dressings is appreciated by all involved, is

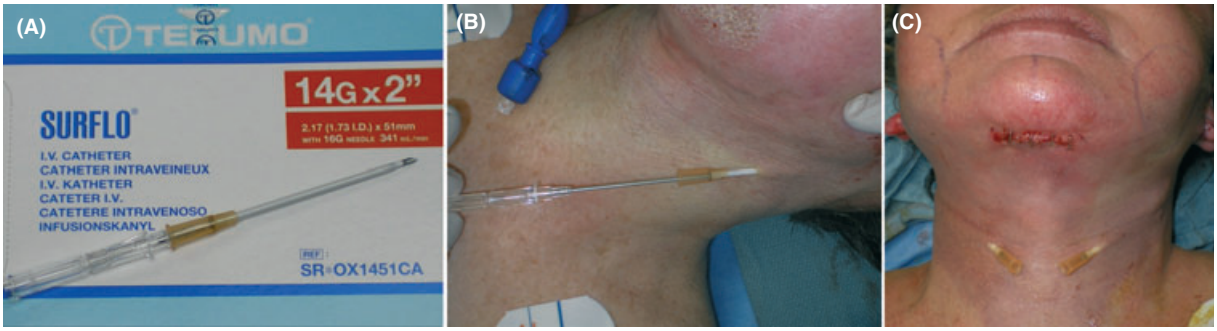

Figure 2. (A) Intravenous catheter (cost $0.86 each). (B) The catheter being inserted in the subcutaneous space at the level of the hyoid, in an oblique direction. (C) Bilateral catheters in situ, retained by tape.

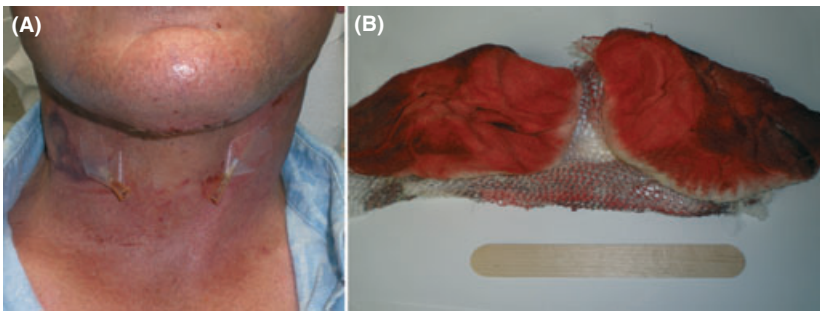

Figure 3. (A) Typical facelift patient 24 hours postoperatively with the catheters in place. (B) The dressing immediately after removal. This patient changed the absorbent gauze twice on the night of the surgery. This image represents the third change in 24 hours. No active drainage is usually present at 24-hour follow-up.

more gentle on the newly lasered skin, and has not produced any negative effects on healing or outcome. Although I never used Penrose or Jackson-Pratt vacuum-assisted drains (many surgeons do), I spent significant time on numerous postoperative visits draining seromas and minor blood collections. The use of the overnight "minivent" system has eliminated seromas and minor blood collection in more than 120 facelifts over a more than 2-year period. No visible scar has been left from the trocar or catheter. My clinical question is "Where did the voluminous drainage go before I used this venting system?" The answer is that severe collections required aspiration, but moderate collections had to be physiologically absorbed by the body, which in my opinion extended healing and bruising.

This article is empirical and not evidence based, but any experienced facelift surgeon who performs large lifts should be able to appreciate the benefits of both points described. Surgeons frequently continue to provide a certain procedure or level of care because it is dogma carried over from residency or fellowship. Progressive surgeons have always challenged the way things are done to provide a more-streamlined, safer, and more-effective surgical experience. Although evidence-based research is preferable, positive anecdotal observations cannot be ignored. Hence this article is presented in a "how I do it" or "case report" format. Some surgeons perform conservative short-scar, short-flap facelifts without platysmaplasty, and the described techniques would be of less importance to them, but these techniques have safely streamlined the facelift process in my practice.

References

1. Niamtu J. Complications in facelift surgery. Oral Maxillofacial Surg Clin N Am 2009;21:59–80.

2. Niamtu J. Expanding hematoma in face-lift surgery: literature review, case presentations, and caveats. Dermatol Surg 2005;31:1134–44.

3. Jones BM, Grover R. Avoiding hematoma in cervicofacial rhytidectomy: a personal 8-year quest. Reviewing 910 patients. Plast Reconstr Surg 2004;113:381–7.

4. Perkins SW, Williams JD, Macdonald K, Robinson EB. Prevention of seromas and hematomas after face-lift surgery with the use of postoperative vacuum drains. Arch Otolaryngol Head Neck Surg 1997;123:743–5.

5. Jones BM, Grover R, Hamilton S. The efficacy of surgical drainage in cervicofacial rhytidectomy: a prospective, randomized, controlled trial. Plast Reconstr Surg 2007;120:263–70.

Address correspondence and reprint requests to: Joe Niamtu III, DMD, Cosmetic Facial Surgery, 11319 Polo Place, Midlothian, VA 23113, or e-mail: niamtu@niamtu.com