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Extrusion of suture and granuloma formation from a neck thread lift

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To the Editor:

Thread-lifts are minimally invasive therapies for facial and neck rejuvenation which may be used with other procedures such as botulinum toxin, soft tissue fillers, radiofrequency treatment, and open face lift surgery [1,2]. Also called the “lunchtime lift,” the shorter downtime and lower costs led to its popularity as an alternative to the traditional open surgical face and neck lift [3]. Promoted as a low-risk procedure, complications are relatively rare but may nevertheless arise. We herein report a case of suture extrusion and granuloma formation from a neck thread lift and discuss the possible contributory factors for such a complication.

A woman in her 80s presented to the dermatology clinic with bilateral neck lumps of 6 months’ duration. These were largely asymptomatic with no

significant change in size or appearance over the past few months. However, there was a continued extrusion of white thread-like material from the right neck lump. She initially declined any previous procedures or surgery to the face or neck.

Physical examination revealed a small crateriform depression with central bluish-black material over the right neck (**Figure 1A**). Attempted extraction revealed an underlying monofilament non-barbed suture knot with a surrounding mesh, consistent with an extruding suture thread (**Figure 1B**). There were also multiple subcutaneous firm nodules over the anterior neck (**Figure 2**).

On further questioning including obtaining a collaborative history from her daughter, a history of having a face lift over 20 years ago, and a neck lift 10 years ago was elicited. The extruding sutured thread, contralateral neck threads, and anterior neck nodules were subsequently removed and excised under anesthesia (**Figure 3**), although remnant



Figure 1. Extruding prolene knot surrounded by a mesh.



Figure 2. Subcutaneous nodules over the anterior neck.

components which were unable to be retrieved were left in situ. Histology of the anterior neck nodules revealed a foreign body granulomatous reaction to abundant basophilic non-birefringent material.

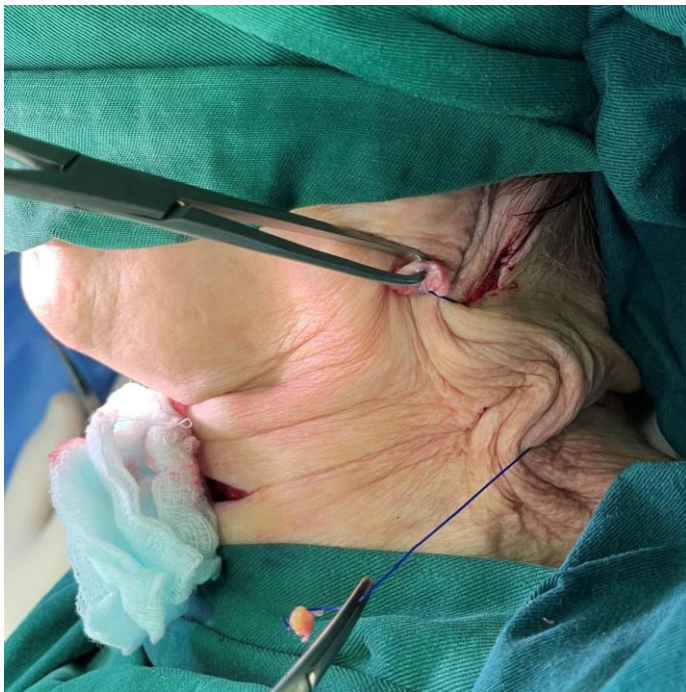


Figure 3. Intraoperative photo showing both ends of the suture thread.

Foreign body and granulomatous reactions may occur with the implantation of any exogenous material. In this context, it also arises in part from the collagen and fibroblastic stimulating properties that

were intended to provide longer lasting effects of the thread lift [1,2,4]. Other complications reported from thread lifts include infection, swelling, hematoma, dermal pinching, and scarring [1,2,5].

The threads in facial and neck thread lifts are typically placed in the subcutaneous tissue or deeper planes such as the superficial musculoaponeurotic system and fascia [1,6]. When pulled in the predetermined vector, the threads provide a lifting effect to counteract aging and lax tissue. These threads may be classified as absorbable or non-absorbable, barbed or non-barbed, and monofilament or multifilament. The use of absorbable threads is gaining popularity compared to the non-absorbable predecessors due to the postulated lower risk of thread migration and need for revision surgery as the sutures degrade over approximately 6 months [1,2]. Data, however, on the long-term durability and efficacy for absorbable threads are lacking. The use of barbs or cones over the suture may also reduce the risk of sutures cutting-through as the weight of lifted tissues distributes over numerous barbs and not solely on the suture knots at the ends. Finally, properly shortening the ends of the thread is important to reduce the risk of the thread abutting and extruding onto the skin surface [6].

This case highlights two long-term complications arising from a neck thread lift, that of suture extrusion and foreign body granuloma formation. Patients may not always be forthcoming about having prior cosmetic procedures and specific repeated questioning may be required to elicit this event. The treatment for suture extrusion and granuloma formation involves revision surgery and removal of the thread and granulomas. However, scarring may preclude its complete removal as illustrated in this present case.

Potential conflicts of interest

The authors declare no conflicts of interest.

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