Subcutaneous Fistulectomy in Bridging Hidradenitis Suppurativa

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BACKGROUND. The treatment of chronic lesions in hidradenitis suppurativa remains a challenge. For some clinical types surgical management is an excellent alternative.

OBJECTIVE. This study evaluates an alternative surgical approach for the treatment of hidradenitis suppurativa of specific bridging lesions by subcutaneous resection of the tubular fibrotic tissue.

METHODS. Periorificial fusiform skin incisions were made around the orifices parallel to the axillary or inguinal folds and the subcutaneous fistula was removed en bloc before skin suturing.

RESULTS. The outcome was evaluated as satisfactory due to lower morbidity, minimizing the excised skin areas, prevention of bridles or adherences, shorter incisions, no healing difficulties, and less dehiscence or wound exposure.

CONCLUSION. The subcutaneous fistulectomy is a surgical option in bridging hidradenitis suppurativa.

HIDRADENITIS SUPPURATIVA is a suppurative, relapsing inflammatory disease that involves the apocrine gland follicles. Initial treatment consists of local hygiene, including weight reduction in the obese, use of ordinary soaps and other antiseptic detergent agents, and wearing loose clothing. Acute episodes and relapses should be treated as bacterial infections. Mild topical steroid creams in combination with systemic antibiotics such as penicillin, erythromycin, metronidazole, tetracycline, minocycline, and clindamycin are indicated. Topical antibiotics of the aminoglycoside group can also reduce cutaneous inflammation. Intralosional triamcinolone may produce regression. The use of systemic corticosteroids, oral contraceptives, and synthetic retinoids have also been described.

When hidradenitis becomes chronic and often indolent due to subcutaneous extension with induration, scarring, destruction of skin appendages, and sinus formation, surgery should be considered. The ideal treatment of hidradenitis suppurativa should provide a high likelihood of cure with a low recurrence rate, as well as minimal inconvenience and lost work time. There are numerous helpful, relatively minor surgical techniques that include drainage, exteriorization, curettage, electrocoagulation of sinus tracts, and simple excision of troublesome areas with direct closure, local cutaneous flaps, skin grafting, and second intention healing.

In this article we present eight patients with lesions that have two distant cutaneous orifices interconnected through a subcutaneous fistula that we call “bridging” lesions (Figures 1 and 2) for which treatment with an alternative surgical approach was employed.

Materials and Methods

The study consists of eight patients: seven white women and one black man with an average age of 25 years (range 19–35) with chronic hidradenitis suppurativa. They complained of 1- to 2-year histories of axillary (7) and vulvar (1) lesions combined with pain and pruritus. On physical examination, fistulous orifices draining purulent material were present and they were 3–6 cm apart (Figure 1). Medical therapy had been attempted without benefit.
The lesions were histologically similar, showing superficial and deep folliculitis associated with granulation tissue forming fistulous tracts. Pathologic diagnosis was hidradenitis suppurativa.

**Surgical Technique**

Twenty-four hours before the procedure, all patients were placed on systemic cephalosporin (cefalexin 500 mg every 6 hours) for 10 days. Asepsis was performed with povidone-iodine.

Periorificial fusiform skin incisions were made parallel to the axillary or inguinal folds (Figure 3). To allow accurate visualization of the fistulous tract, vital blue dye injection was performed slowly and gently through a Teflon-coated IV catheter with minimal insertion (1 cm), avoiding pain or discomfort to the patient.

The perilesional and incisional area were anesthetized with local injection of 0.75% lidocaine with epinephrine 1:120,000 UI. Skin incisions were made around the orifices and the subcutaneous tubular fibrotic tissue was removed “en bloc” (Figure 4). A violet to blue-red jelly material can be exposed on inadvertent incision and small perforations may occur in areas of greater adherence between the fibrotic tissue and the skin. Those perforations can be left unrepaired.

Skin suturing (Figure 5) should be performed, allowing a wider space between stitches to provide adequate drainage. We do not recommend the use of buried sutures that could trigger foreign body reaction inflammation.

Compressive dressings should be changed 10 times a day for 5 days and then 3 times a day until complete healing has occurred. Although it can be difficult and patients may complain, mechanically washing the wound with water and soap minimizes collections, infection, and the risk of dehiscence. The use of topical antibiotics or iodophor solutions may be considered but is not mandatory. We did not observe maceration or secondary yeast infection because the patients were to implement careful drying.

Sutures were removed on the tenth day postoperatively.
Results

All patients had good postoperative periods with minimal pain and no complaint of fever or other clinical manifestations of infection. Four patients had mild drainage in the first week. There was one case of partial wound dehiscence, but no difficulties or delays in healing.

The axillary nerves and vessels are located in a deeper plane. A proper knowledge of the regional anatomy and a careful dissection of the fistulous tissue is needed to minimize any complications.

Discussion

Research is still needed to clarify the pathogenesis of hidradenitis suppurativa. Treatment of acute lesions requires intensive cleansing, use of systemic antibiotics, and anti-inflammatory agents. If necessary, surgical drainage, drainage of the lesion with or without curettage, and electrodessication can be performed. Many other therapies have been used, including systemic or intralesional corticoids, antibiotics, and isotretinoin. For chronic lesions, an array of surgical procedures have been described including excision and primary closure, skin flaps, grafting, and second intention healing.1,2,6,9,10,14,17,18,20,26–29

The use of repetitive partial excisions has been reported.1,10 Resolution of chronic lesions depends on complete removal of the affected area, which can lead to large unsightly scars and even impairment of axillary or inguinal movements.1,2,10,18,27

We propose an alternative surgical approach that lowers morbidity and minimizes the excised skin areas. Parallel incision to natural folds prevents bridles or adherences and the length of incisions is shorter with no healing difficulties or risk of dehiscence. No open wound is left for secondary intention healing, with good postoperative evolution and better aesthetic results (Figure 6). A faster postoperative recovery and simple wound care helps with patient compliance.

References

Commentary

Hidradenitis suppurativa is an often frustrating disease for both the patient and physician. Every known therapeutic approach is successful some of the time, but nothing seems to work all of the time. Golcman et al. are to be commended for providing us with yet another approach, subcutaneous fistulectomy, for chronic lesions of hidradenitis suppurativa.

Although I share the authors’ enthusiasm for this technique, there are some questions which remain unanswered.

1. Why don’t the authors order a bacterial culture and sensitivity of the draining purulent secretions prior to surgery rather than rely on systemic cephalosporin being broad spectrum enough to be effective against all possible etiologic agents causing the purulent material?

2. In describing their surgical technique the authors listed ‘periorificial fusiform skin incision’ second and use of local anesthesia third. I think the order of these should be reversed, because these intertriginous lesions are often exquisitely tender, which would make the passing of a catheter and injecting a dye intolerable for the patient.

3. In their results section, the authors mention the proximity of the auxiliary nerves and vessels, however, blind dissection on thin (ectomorphic) patients in the axillary vault area can be risky.

4. The authors do not mention what they do when multiple fistulous orifices are present. Do they interconnect, does one tract go under or over another tract; and how many may be treated at one sitting?

5. The authors should give us their opinion as to when they would abandon the above technique and proceed to complete removal of the uncoiled involved area.

Golcman et al. are to be commended for this new technique to treat chronic lesions of hidradenitis suppurativa, always a therapeutic challenge.

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