2025 NEW YORK REGIONAL SOCIETY OF PLASTIC SURGEONS ANNUAL RESIDENTS' NIGHT RESEARCH COMPETITION

MONDAY, MARCH 10, 2025
NEW YORK ACADEMY OF MEDICINE

ABSTRACT SUBMISSION TITLE: *C3 - Surgical Treatment of Hidradenitis Suppurativa: Comparing surgical outcomes between wide local excision and healing by secondary intention vs. definitive closure*

Additional Author(s):

Abstract Presenting Author:
Anmol Patel, MD

Plastic Surgery Residency Training Program:
Montefiore Medical Center/Albert Einstein College of Medicine of Yeshiva University

Abstract Text:

PURPOSE:

Hidradenitis suppurativa (HS) is a chronic inflammatory dermatological disease of follicular origin often seen in apocrine gland-bearing intertriginous regions and is characterized by the formation of painful nodules, abscesses, and subcutaneous sinus tracts. This study is the largest comprehensive analysis of surgical management of hidradenitis suppurativa through definitive closure compared to wide local excision (WLE) with healing by secondary intention. Our group hypothesized that patients who underwent WLE followed by healing via secondary intention would have fewer complications and heal faster than patients who received skin grafts or local flaps.

METHODS:

This was a retrospective analysis of a cohort of 45 patients who presented with chronic severe hidradenitis suppurativa and underwent WLE with either subsequent healing by secondary intention or definitive closure between February 2009 and May 2023 with a single surgeon. Patients were followed until complete wound healing from index operations and subsequent revisions.

RESULTS:

A total of 45 patients who underwent 104 initial surgical encounters were included in this study. In this dataset, WLE was most commonly performed in the groin, axilla, mons pubis, buttock, and thighs. Twenty-nine sites were left to heal by secondary intention, while forty-four sites were closed by primary closure (n=18), split-thickness skin grafts (STSG) (n=21), and local flaps (n=2 rhomboid, n=1 z-plasty, n=2 thoracodorsal artery perforator flap (TDAP)). There was no statistically significant difference among comorbidities, BMI, length of hospital stay between the definitive closure and healing via secondary intention cohorts. The complication rate was highest for primary closure at 44.44%, followed by flaps at 40%, skin grafts at 8.3%, and 20.69% for secondary intention. Local recurrence was found in 3 individuals who underwent STSG and 8 patients who were left to heal by secondary intention. Follow up times ranged from 1-108 months for secondary intention with a mean of 21 months compared to 1- 60 months for definitive closure with a mean of 19.7 months. Healing time was nearly equivalent among the two groups with a range of 8-36 weeks, with means of 15.8 weeks and 16.3 weeks for secondary intention and definitive closure respectively.

CONCLUSIONS:

While attempts at excising all affected tissue is the operational mainstay for patients with chronic stage III hidradenitis suppurativa, the most effective closure technique has been debated in prior literature. The findings of our study suggest that WLE with secondary intent healing is the most effective method of treating chronic HS. Despite requiring more intensive physical therapy, patient compliance with wound care, and a higher probability of recurrence, secondary intent healing has a lower healing time and complication rate than definitive closure. Based on these results, our practice has shifted towards WLE with secondary intention as the standard for care in treating chronic stage III hidradenitis suppurativa.