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# Hidradenitis Suppurativa: A Comparison of Institutional Experience with the Tracking Outcomes in Plastic Surgery (TOPS) Registry

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## HIDRADENITIS SUPPURATIVA

- Reported prevalence of 0.3% to 4%.
- Painful nodules, abscesses, and sinus tracts.
- Inflammation and infection of the apocrine sweat glands.
- Severe disease usually requires surgical excision.

## METHODS INCLUDE:

- Primary Closure
- Secondary Intention
- Skin Grafting
- Local flaps
- Fasciocutaneous or musculocutaneous flaps
- Reconstructive options determined by extent and depth of tissue resected.
- Insufficient data to compare complication rates by reconstructive method chosen.
- Surgical complication rate high.

## TRACKING OPERATIONS AND OUTCOMES FOR PLASTIC SURGEONS

- The American Society of Plastic Surgeons (ASPS) have maintained TOPS since 2002.
- Offered to all ASPS active members across the United States and Canada.
- Only database to capture both inpatient and ambulatory surgical cases.
- Data is self-reported
- TOPS tracks surgical procedures and 30-day outcomes.
- Designed to provide plastic surgeons with valid clinical/practice information.

## PURPOSE

- Evaluate complications based on location and reconstruction type within Lehigh Valley Health Network
- Reconcile institutional data versus TOPS
- Determine best practice

## STUDY DESIGN

- Retrospective review from Jan. 2004–16
- ICD-9 code 705.83
- Complication rates for each type of reconstruction and location analyzed
- Results compared to TOPS database to compare institutional results to national benchmark data



## RESULTS

381 operative sites for 101 individuals

Type of Closure	Total	Complication Rate
Simple	5	80%
Intermediate	41	68.3%
Complex	141	59.6%
Adjacent Soft Tissue Rearrangement	190	69.5%
Split-Thickness Skin Graft	4	100%

Location	Total	Complication Rate
Axillary	127	61.6%
Inguinal	99	71.4%
Perineal	47	78.6%
Gluteal	21	58.7%

- Type of reconstruction and different complications analyzed with Fischer T-test
  - Adjacent soft tissue rearrangement had highest occurrence of superficial surgical site dehiscence compared to intermediate and complex closure ( $p = 0.0132$ ).
  - No significant difference between types of complications, complication rates, and type of reconstruction.

Location	Closure Method	Wound Breakdown Complication Rate
Axillary	Simple or Intermediate	58.9%
Axillary	Complex	31.9%
Inguinal	Simple or Intermediate	55.3%
Inguinal	Complex	38.7%
Perineal	Simple or Intermediate	40.0%
Perineal	Complex	56.5%
Any	Adjacent tissue transfer	53.8%
Axillary	STSG	11.1%
Inguinal / Perineal	STSG	6.7%
Any	VAC	12.5%
Any	Muscle Flap	5.3%

## COMPARATIVE DATA

Location	Closure Method	LVHN	TOPS
Axillary	Complex	50.0%	31.9%
Inguinal	Complex	25.0%	38.7%
Perineal	Complex	50.0%	56.5%
Any	Adjacent tissue transfer	66.7%	53.8%
Any	STSG	N/A*	6.7 % Inguinal 11.1 % Axillary
Any	VAC	N/A*	12.5%
Any	Muscle Flap	N/A*	5.3%

## DISCUSSION

- HS is highly morbid
- Inguinal region has highest complication rate within LVHN data
- Adjacent-soft tissue rearrangement has highest complication rate within LVHN data and complex closure in TOPS data
- Statistically significant difference between adjacent-soft tissue rearrangement versus complex/intermediate closure for superficial wound dehiscence
- Potential under resection of primary disease

## CONCLUSIONS

- Potential need for more extensive surgical debridement and excision
- More data needed to define best practices
- Similar trends in outcomes between institutional and TOPS data

**DISCLOSURES:** ASPS Clinical Registries Steering Committee Members  
R. Murphy, MD and N. Miller, MD