

Peristomal Hidradenitis Suppurativa: A Case and Review of the Literature

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Abstract

Hidradenitis suppurativa (HS) is a chronic, inflammatory condition of apocrine gland-bearing skin that typically presents as deep, inflamed lesions in the axillary, inguinal, perineal, and mammary regions. We present a rare case of a man in his 60s with a history of HS who presented with a peristomal sinus tract, as well as non-healing, draining wounds around his stoma site that responded well to adalimumab therapy. A compounded clobetasol ointment with poly(ethylene oxide) polymers (POLYOX™, Dupont) was utilized to maintain stoma appliance adhesion, and his lesions effectively cleared with adalimumab.

Keywords: Hidradenitis Suppurativa, Hidradenitis, Tracts, Abscess, Peristomal, Ostomy

Academic Dermatology (2023) 1:1-4 | <https://doi.org/10.18061/ad.v1i1.8816>

Published: July 24, 2023.

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INTRODUCTION

Hidradenitis suppurativa (HS) is a chronic, inflammatory condition of apocrine gland-bearing skin with severe impacts on quality of life.^{1,2} It presents as deep, inflamed, and painful lesions typically in the axillary, inguinal, perineal, and mammary regions.^{2,3} The most commonly affected areas include axillary, inguinal, perianal, perineal, mammary, inframammary, buttock, and pubic regions.⁴ The prevalence is approximately 1% of the U.S. population. Female gender, smoking, and obesity are linked with HS. While the exact etiology is still unclear, the pathogenesis involves follicular occlusion of the apocrine gland with subsequent bacterial infection.⁵ Treatment ranges from lifestyle modifications such as weight loss, smoking cessation, and loose-fitting clothing, to antibiotics, antiandrogen therapy, retinoids, biologics, and surgery.⁴ We present a rare case of HS occurring at a patient's stoma site.

CASE

A man in his 60s with a history of HS involving the groin and axilla presented to dermatology for non-healing, draining wounds around his stoma site. The patient had previously required total proctocolectomy with end ileostomy and gastrectomy due to history of juvenile polyposis. The patient had a history of perianal hidradenitis suppurativa but developed draining peristomal sinus tracts persisting for over six months. Doxycycline was started, and colorectal surgery excised the perianal site with resulting improvement of this area only. On exam, there was a scarred, violaceous sinus tract along the superior aspect of his mucocutaneous junction with purulent drainage. Double-headed comedones were noted in bilateral inguinal creases and left axilla. The peristomal site was cultured, and doxycycline was switched to oral clindamycin, rifampin, and 4% chlorhexidine gluconate solution application daily for one month. Aerobic bacterial cultures from a swab of the sinus tract grew *Proteus mirabilis*, *Enterococcus faecium*, *Enterococcus faecalis*, and *Klebsiella pneumoniae*. *E. faecium* and *E. faecalis* were considered GI tract commensals, and the patient was treated for *P. mirabilis* and *K. pneumoniae* with ciprofloxacin. On a six-week follow-up, the patient reported minimal benefit from antibiotics and continued to have an inflamed peristomal sinus tract with surrounding erythema (Figure 1). The peristomal lesion was deemed consistent with peristomal HS given its chronic nature, its sinus tracts and inflammatory nodules, and the presence of active HS at other sites. The patient began therapy with adalimumab. For wound and ostomy care, the patient was to change the pouch every two to three days, cleanse lesions with 4% chlorhexidine gluconate solution, apply silver impregnated hydrofiber (Aquacel Ag, ConvaTec) covering over the sinus tract, use stoma powder to absorb excess moisture, and spray with an adhesion barrier spray to minimize skin irritation. On his 2-month follow-up, there was marked improvement of the right inflammatory nodules and decreased drainage from the sinus tract (Figure 2).



Figure 1. Before Adalimumab: Scarred, violaceous sinus tract along the superior aspect of stoma consistent



Figure 2. *After 2 Months of Adalimumab: Partial resolution of peristomal disease after 2 months of adalimumab therapy*

Intralesional triamcinolone was administered to the remaining tract and adalimumab was continued. A compounded 0.05% clobetasol ointment with tacrolimus and poly(ethylene oxide) polymers (POLYOX™, Dupont) was applied to the HS lesions. The addition of poly(ethylene oxide) polymers to the compound increased its adhesive properties and improved stoma appliance attachment. After 5 months of adalimumab, the site was completely healed with only a hypertrophic scar remaining.

METHODS

We completed a search through Pubmed and Embase on December 20, 2021, to identify other reported cases of peristomal HS. The search strategy was (("Hidradenitis Suppurativa"[Mesh] OR "Hidradenitis Suppurativa" OR "Suppurative Hidradenitis" OR "Hidradenitis, Suppurative" OR "Acne Inversa" OR "Inversa, Acne" OR "HS" OR "Peristomal hidradenitis suppurativa")) AND (("Surgical Stomas"[Mesh] OR "Surgical Stomas" OR "Stoma, Surgical" OR "Surgical Stoma" OR "Stomata, Surgical" OR "Surgical Stomata" OR "Stomas, Surgical" OR "Stoma" OR "peristomal")) in Pubmed and ('suppurative hidradenitis'/exp OR 'hidradenitis suppurativa' OR 'suppurativa, hidradenitis' OR 'suppurative hidradenitis') AND ('stoma'/exp OR 'stoma' OR 'stomas' OR 'surgical stoma' OR 'surgical stomas' OR 'surgical stomata') in Embase. Only one case of peristomal HS was identified, making our patient the second reported case of HS at this rare site.

DISCUSSION

HS is an inflammatory disorder with severe impacts on quality of life and is characterized by painful nodules, abscesses, sinus tracts, and scarring of apocrine-bearing skin.³ While the most commonly affected areas include axillary, inguinal, perianal, perineal, mammary, inframammary, buttock, and pubic regions, other sites have been described.⁴ The clinical diagnosis of HS involves three criteria: typical lesions, occurrence in one or more predilection sites (axillae, inframammary, intermammary folds, groin, perineal region, or buttocks), and a chronic or recurrent course.⁶ Although the peristomal location is not a classic HS site, our patient also had HS involvement of the perianal, inguinal, and axillary areas.

A broad array of conditions may affect peristomal skin including chronic irritant dermatitis, infection, ischemia, folliculitis, cutaneous inflammatory bowel disease, and pyoderma gangrenosum.⁷ Yet, rarely, peristomal HS should be considered.⁸ The presence of HS at multiple other sites was common between our patient and the previously reported case, and this may be an important diagnostic clue (Table 1). This is especially pertinent in the case of peristomal HS with concurrent inflammatory bowel disease (IBD), as there is an increased association between HS and IBD. A systematic review found an increased association between HS and Crohn disease (OR 2.25; 85% CI 1.52 - 3.32) and with ulcerative colitis (OR 1.56; 95% CI 1.26 - 1.94).⁹ In such patients, differentiating Crohn colitis and HS may be difficult and identifying HS at other predilection sites can support the diagnosis of HS. Adalimumab has demonstrated efficacy in such patients with Crohn disease and HS.¹⁰ Adalimumab is also an appropriate therapy for moderate HS refractory to systemic antibiotics, and, consistently, our patient's peristomal disease resolved after 6 months of treatment.² The previously published case report describes partial improvement using 3 weeks of metronidazole as an alternative consideration.

Wound care is especially important for peristomal HS patients. Both our patient and the previously reported case experienced inadequate stoma bag adhesion, leading to leakage, irritant dermatitis, and embarrassment.⁸ There are several common accessories for stoma maintenance: seals and filler paste to prevent leakage; protective paste, stoma powders, and barrier films to protect the surrounding skin from stoma secretions; and adhesive removers to detach appliances.¹¹ In patients with HS, peristomal lesions can complicate proper adhesion and wound care. For our patient, wound care involved cleansing with 4% chlorhexidine gluconate solution and application of a silver impregnated hydrofiber (Aquacel Ag, Convatec) covering to the sinus tract. Additionally, to improve stoma bag adhesion and prevent leakage, a compounded 0.05% clobetasol ointment consisting of clobetasol, tacrolimus, and poly(ethylene oxide) polymers (POLYOX™, Dupont) was applied to the HS. The addition of poly(ethylene oxide) imparts adhesive properties to the ointment. This combination effectively protected the HS and decreased inflammation without compromising stoma bag adhesion.

	Patient 1 ⁸	Patient 2
Age (years)	55	64
Gender	Male	Male
Comorbidities	Chron Disease	Juvenile Polyposis
Additional HS ^a Sites	Axilla Inguinal Folds Perianal	Axilla Inguinal Folds Perianal
HS Treatment	3 weeks Metronidazole 250mg TID ^b	Adalimumab 40 mg qw ^c
Outcome	Partial Improvement	Complete Resolution
^a Hidradenitis suppurativa, ^b Three times a day, ^c Each week		

Table 1. Comparison of demographics, treatments, and outcomes for patients with peristomal hidradenitis suppurativa

CONCLUSIONS

HS is chronic condition of apocrine gland-bearing skin with severe impacts on quality of life. While HS has a predilection for the axillary, inguinal, perineal, and mammary regions, peristomal HS should be considered for a non-healing, draining peristomal lesion. The presence of typical HS lesions at other body sites may aid in accurate diagnosis of peristomal lesions. A notable complication of peristomal HS is difficulties with wound care and stoma bag adhesion. Proper patient education, antibacterial bandages, and compounded clobetasol ointments with adhesive polymers may reduce inflammation without compromising stoma bag adhesion. Lastly, adalimumab therapy has shown efficacy in our patient with HS.

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