

# Case report of hidradenitis suppurativa localized to the face in an HIV patient

SAGE Open Medical Case Reports  
 JCMS Case Reports  
 Volume 9: 1–4  
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 DOI: 10.1177/2050313X211057923  
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Brian D Rankin<sup>1</sup> and Richard M Haber<sup>2</sup> 

## Abstract

Hidradenitis suppurativa is a chronic, debilitating inflammatory skin disease. Case reports of individuals with hidradenitis suppurativa presenting exclusively on the face, as well as reports of individuals with HIV and hidradenitis suppurativa, are rare. Here, we present the case of an HIV-positive man who presented with hidradenitis suppurativa localized only on his face. We also review facial hidradenitis suppurativa and hidradenitis suppurativa in HIV patients.

## Keywords

Hidradenitis suppurativa, face, human immunodeficiency virus

## Introduction

Hidradenitis suppurativa (HS), also known as acne inversa, is a chronic, recurrent, debilitating inflammatory skin disease characterized by painful, deep-seated, inflamed papules, nodules, cysts, abscesses, and sinus tracts, mucopurulent discharge, and progressive scarring. It is a disorder of the terminal follicular epithelium and most often occurs in the axillae, sub-mammary folds, groin, perineum, buttock, and medial thighs. More rarely, HS can affect the scalp, face, neck, and back.<sup>1,2</sup>

There are very few reports of HS on the face<sup>3–6</sup> and only a single previously reported case of HS exclusively localized to the face.<sup>5</sup> Cases of HS in individuals with HIV are also rare, with only six previously reported cases<sup>7–12</sup>; however, a recent retrospective, cross-sectional study revealed a statistically significant association between HS and HIV.<sup>13</sup> Here, we report on a unique case of HS affecting only the face of a man with HIV.

## Case report

A 31-year-old Caucasian man presented to our clinic with a 4-month history of a solitary mass on the left mandibular area believed to be an abscess. It was slightly tender and exuded pus from several openings within the mass. He had a history of being HIV positive for 7 years. His HIV was well controlled on once daily oral Biktarvy containing bicitgravir, emtricitabine, tenofovir, and alafenamide, and he had a normal CD4<sup>+</sup> count and an undetectable viral load. Clinical examination showed a 5 by 5 cm erythematous mass with a rough surface and a few draining sinuses over the right mandibular area (Figure 1). A previous X-ray showed no evidence of periostitis



**Figure 1.** Erythematous mass over right mandibular area.

or bone destruction and he had previously seen a dentist and a dental sinus was ruled out. The differential diagnosis when seen included infectious causes such as actinomycosis, a deep

<sup>1</sup>Cumming School of Medicine, University of Calgary, Calgary, AB, Canada

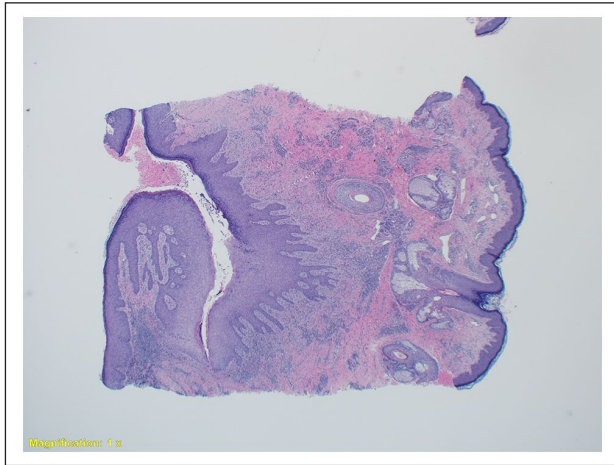
<sup>2</sup>Division of Dermatology, Department of Medicine, University of Calgary, Calgary, AB, Canada

### Corresponding Author:

Richard M Haber, Division of Dermatology, Department of Medicine, University of Calgary, 1820 Richmond Road SW, Calgary, AB T2T 5C7, Canada.

Email: [Richard.haber@albertahealthservices.ca](mailto:Richard.haber@albertahealthservices.ca)





**Figure 2.** Squamous-lined cystic structure at the deep skin biopsy edge compatible with a sinus tract.

fungus, tuberculosis (TB), and atypical mycobacteria. Two 4-mm punch biopsies were done, one for histology and one for cultures. Skin biopsy showed a squamous-lined cystic structure at the deep biopsy edge compatible with a sinus tract (Figure 2). Periodic acid-Schiff (PAS), Grocott's methenamine silver (GMS), Ziehl-Neelsen (ZN), and Fite stains were all negative. Cultures sent for aerobic and anaerobic cultures grew a few *Staphylococcus aureus* but were negative for *Actinomyces* species. Tissue culture for deep fungus, TB, and atypical mycobacteria were all negative. He was treated with oral doxycycline 100mg PO BID for 2 months, and when reassessed, the morphology of the lesion had markedly changed (Figure 3) to a flesh-colored indurated plaque with marked cribriform scarring. A full skin examination at this time showed no lesions in the axillae, groin, and buttocks except for a 5-mm depressed scar in the left lower abdomen which the patient attributed to an “ingrown hair.”

At this time, the clinical appearance suggested HS localized to the face. An incisional biopsy from the plaque including an area of cribriform scarring was submitted for pathology and showed an acute folliculitis with deep dermal fibrosis and a lymphoplasmacytic infiltrate. All repeated cultures were negative. He was put on a course of oral isotretinoin and the plaque was injected with intralesional triamcinolone acetonide 10 mg/cc and he has a good response to this treatment.

## Discussion

HS can occasionally affect the face when simultaneously presenting in more typical sites (e.g. axillae, groin); yet, reports of HS exclusively occurring on the face are exceedingly rare. A review of the literature revealed only one case in which a 30-year-old man had a 2-year history of HS involving the preauricular areas and no other areas.<sup>5</sup> He was treated with doxycycline and topical retinoids and clindamycin gel, with



**Figure 3.** Flesh-colored indurated plaque with marked cribriform scarring.

some improvement. There are two other case reports of predominantly facial HS but in one the posterior neck was involved as well as the jawline and, in the other case, the anterior neck was also involved along with the jawline, with this case said to mimic severe cystic acne.<sup>4,6</sup>

Reports of HS in immunocompromised patients, and specifically those with HIV, are also unusual. There are six published case reports in which HS occurred in an individual with HIV (Table 1).<sup>7-12</sup> Five of these six individuals (83.3%) were male and the mean age was  $36.2 \pm 14.0$  years, ranging from 13 to 47 years of age. The mean duration with HS was  $5.4 \pm 7.7$  years, with at least three of these patients suffering from long-standing, severe refractory HS.

The patient detailed here represents only the second report of HS restricted exclusively on the face and the seventh case report of an HIV-positive individual with HS; this is also the only case of HS localized to the face in an HIV patient. The affected sites among the seven reported individuals with HIV and HS were broadly similar to HS in the general population; although, the occurrence at less-characteristic sites seems to be slightly more common. For instance, in three of the seven cases (42.9%), face was involved (Table 1).

The precise etiology and pathogenesis of HS remains unknown; however, a number of predisposing factors, such as obesity and smoking, have been suggested to have a role.<sup>14,15</sup> Interestingly, with regard to HIV infections, Deng et al.<sup>13</sup> found that patients with HIV are over six times more likely to have a concomitant diagnosis of HS when compared with those without HIV. The increased release of

**Table 1.** Reported occurrences of hidradenitis suppurativa in individuals with human immunodeficiency virus.

| Source                                 | Sex    | Age (years)  | Duration        | Location   | Severity          | Treatments failed  | Treatment   |
|--|--------|--------------|-----------------|--|-------------------|--|---|
| Alecsandru et al. <sup>7</sup>         | Male   | 47           | “Long-standing” | Axilla, gluteal, perianal, thoracic, abdominal regions | Severe refractory | Erythromycin stearate, minocycline, cefuroxime, doxycycline, topical clindamycin | Infliximab, topical clindamycin                             |
| Khambhati et al. <sup>8</sup>          | Male   | 35           | 2 years         | Face, thighs, gluteal region, and axilla               | –                 | –  | Doxycycline, ibuprofen, dapsone                             |
| Husein-ElAhmed et al. <sup>9</sup>     | Male   | 47           | 18 years        | Inguino-scrotal, perineum, and gluteal areas           | Severe refractory | Isotretinoin, tetracycline, erythromycin, cephalexin, ciprofloxacin              | Infliximab, neodymium-yttrium-aluminum-garnet laser therapy |
| Prabhu et al. <sup>10</sup>            | Male   | 13           | 1 month         | Right axilla   | –                 | –  | Antiretroviral therapy (zidovudine, lamivudine, nevirapine) |
| Dhadke et al. <sup>11</sup>            | Male   | “Middle-age” | 10 days         | Chest, neck, shoulder, axilla, and right cheek         | –                 | Local antibiotic washes, amoxicillin and clavulanic acid, prednisolone           | –   |
| Molina-Leyva and Badiola <sup>12</sup> | Female | 39           | 12 years        | Both axillae   | Severe refractory | Doxycycline, clindamycin with rifampin, surgical interventions                   | Adalimumab  |
| Rankin and Haber, current case         | Male   | 31           | 4 months        | Right jawline  | Moderate          | Doxycycline  | Isotretinoin, intralesional triamcinolone acetonide         |

pro-inflammatory cytokines associated with HIV, including tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ) and interleukin-6 and -18, was also thought to contribute to HS.<sup>16</sup>

HS is notoriously difficult to manage and, for individuals with HIV and HS, treatment options can be more limited in an attempt to not increase the immunodeficiency. In the general population, severe or recalcitrant HS cases often require systemic therapies, such as oral antibiotics, retinoids, steroids, immunosuppressives, and biologics. Anti-TNF- $\alpha$  agents, including infliximab and adalimumab, have demonstrated efficacy for HS in patients without HIV. Infliximab has also been used successfully to manage HS in two HIV-positive patients;<sup>7,9</sup> although, in one of these cases, the therapy may have contributed to a reduced CD4<sup>+</sup> lymphocyte count and increased viral load.<sup>7</sup> Adalimumab has additionally been used to manage HS in one individual with HIV and demonstrated sustained, complete clinical response without infectious complications.<sup>12</sup> In our patient, the HS was relatively mild and localized to the right mandibular area. He was initially treated with oral doxycycline, and subsequently has responded well to a course of oral isotretinoin along with intralesional triamcinolone acetonide injections.

The case reported here is unusual because of the restriction of HS to the face and because the patient was HIV positive. Prompt recognition and initiation of treatment may have slowed the progression of the disease and limited decreases in

the quality of life. We suggest that clinicians be aware that HS can occur exclusively on the face and, in these situations, may suggest an infectious etiology or dental sinus. We also encourage more reports of HS in HIV patients to better estimate the incidence of these two chronic diseases coexisting.

#### Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

#### Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

#### Informed consent

Informed consent has been obtained from the patient by the authors.

#### ORCID iD

Richard M Haber  <https://orcid.org/0000-0002-5885-2594>

#### References

1. Canoui-Poitrine F, Revuz JE, Wolkenstein P, et al. Clinical characteristics of a series of 302 French patients with hidradenitis suppurativa, with an analysis of factors associated with disease severity. *J Am Acad Dermatol* 2009; 61(1): 51–57.

2. Vazquez BG, Alikhan A, Weaver AL, et al. Incidence of hidradenitis suppurativa and associated factors: a population-based study of Olmsted County, Minnesota. *J Invest Dermatol* 2013; 133(1): 97–103.
3. Greer KE. Facial involvement with hidradenitis suppurativa. *Arch Dermatol* 1974; 109(3): 408.
4. Syed ZU and Hamzavi IH. Atypical hidradenitis suppurativa involving the posterior neck and occiput. *Arch Dermatol* 2011; 147(11): 1343–1344.
5. Jain S, Sardana K, Garg VK, et al. Hidradenitis suppurativa involving the preauricular region: an unusual location. *Indian J Dermatol Venereol Leprol* 2012; 78(2): 229.
6. Castrillón Velásquez MA, Kim M, Mei-Heng T, et al. An atypical localized form of hidradenitis suppurativa of the jawline and neck mimicking severe cystic acne on presentation. *Skin Appendage Disord* 2017; 3(4): 215–218.
7. Alecsandru D, Padilla B, Izquierdo JA, et al. Severe refractory hidradenitis suppurativa in an HIV-positive patient successfully treated with infliximab. *Arch Dermatol* 2010; 146(12): 1343–1345.
8. Khambhati R, Singhal P and Marfaiya YS. Hidradenitis suppurativa in AIDS. *Indian J Sex Transm Dis AIDS* 2010; 31(1): 45–46.
9. Husein-ElAhmed H, Fernandez-Pugnaire MA and Ruiz-Carrascosa JC. Severe hidradenitis suppurativa in an HIV-positive male: use of multiple treatment modalities, including tumor necrosis factor blockade. *AIDS Patient Care STDS* 2011; 25(9): 507–508.
10. Prabhu G, Laddha P, Manglani M, et al. Hidradenitis suppurativa in a HIV-infected child. *J Postgrad Med* 2012; 58(3): 207–209.
11. Dhadke SV, Korade MB, Sangle SA, et al. Hidradenitis suppurativa complicating epithelial malignancy in immunocompromised patient. *J Assoc Physicians India* 2016; 64(12): 90–92.
12. Molina-Leyva A and Badiola J. Severe refractory hidradenitis suppurativa successfully treated with adalimumab in an HIV-positive/hepatitis C virus-positive patient. *AIDS* 2018; 32(16): 2436–2438.
13. Deng PH, Wang CJ and Armstrong AW. An association between hidradenitis suppurativa and HIV. *Br J Dermatol* 2020; 182(2): 490–491.
14. Kohorst JJ, Kimball AB and Davis MD. Systemic associations of hidradenitis suppurativa. *J Am Acad Dermatol* 2015; 73(5, Suppl. 1): S27–S35.
15. Acharya P and Mathur M. Hidradenitis suppurativa and smoking: a systematic review and meta-analysis. *J Am Acad Dermatol* 2020; 82(4): 1006–1011.
16. Jiménez-Gallo D, de la Varga-Martínez R, Ossorio-García L, et al. The clinical significance of increased serum proinflammatory cytokines, C-reactive protein, and erythrocyte sedimentation rate in patients with hidradenitis suppurativa. *Mediators Inflamm* 2017; 2017: 2450401.