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Skin lesion of hidradenitis suppurativa mimicking lymphogranuloma venereum: a case report

Akbar Pratama^{1*}, Diany Nurdin²

ABSTRACT

Background: Hidradenitis suppurativa clinical appearance is painful, deep-seated inflamed lesions, most commonly found on axillary, inguinal, anogenital regions. It should be differentiated with primary cutaneous bacterial infection (abscesses, carbuncles, or furunculosis) and rare conditions such as *lymphogranuloma venereum*.

Case: we report a 50-year-old male presenting with an unusual clinical presentation of hidradenitis suppurativa located in suprapubic such as bilateral fluctuant and suppurative nodules

resembling lymphadenitis, led to an initial diagnosis of lymphogranuloma. We excluded lymphogranuloma diagnosis based on the serology test of *Chlamydia trachomatis*, bacterial cultures, and sensitivity tests. The results were non-reactive for the *Chlamydia trachomatis* serology test, and *Staphylococcus aureus* was found in bacterial culture.

Conclusion: clinicians must be aware of diagnosis precisely, prevent the recurrent, and improve the prognosis.

Keywords: hidradenitis suppurativa, lymphogranuloma venereum

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INTRODUCTION

Hidradenitis Suppurativa (HS) is a multifactorial, chronic inflammatory disorder, with dysregulated skin immunity around hair follicles in the intertriginous regions. It is likely that a combination of factors, including dysregulated immunity, bacteria, genetics, smoking, and obesity, are involved in the pathophysiology of this complex disease.^{1,2}

There are painful, deep-seated inflamed lesions primarily within the folded areas that may begin as tenderness or pruritus that progresses to a tender papule or nodules that can become quite large and painful. They may resolve slowly without drainage or progress to an abscess-like lesion that eventually ruptures and drains purulent material.^{1,3}

The location of lesions varies among individuals. Female with HS is localized on axillae, inguinal, anogenital, perineum, and inframammary area. Meanwhile, the buttock, perianal, and atypical regions (e.g., retroauricular, trunk) more often affected in men, although any regions may be involved in either gender, with actual data suggest a female of predominance with a 3:1 sex ratio.²⁻⁴

The differential diagnosis of HS is extensive. Type of lesions should be differentiated from abscesses, carbuncles, or furunculosis, typically a unilateral or secondary infection of cystic structures

(e.g., epidermoid cysts and Bartholin glands). HS must also be differentiated from Bartholin abscess, scrofuloderma, and lymphogranuloma venereum (LGV), present with both abscesses and sinus tracts.^{3,5}

Herein, we report an HS case with an unusual clinical presentation within the male patient located in suprapubic. Clinical findings, such as bilateral fluctuant and suppurative nodules in suprapubic resembling lymphadenitis, led to an initial diagnosis of (LGV). History taking, clinical examination, serology test of chlamydia trachomatis, bacterial cultures, and sensitivity test proved the patient's condition to be HS. The present case is unique for its unusual clinical presentation resembling LGV. The patient has given the informed consent for the publication

CASE REPORT

A 50-year-old male, living for years in Palu, Central Sulawesi, presented to the dermatology clinic of Undata Hospital with bilateral nodules and ulcers around the genital, specifically in the lymph node scrotum area (Figure 1). Lesions have been presented for two weeks, with reddish skin initially and felt itchy on the suprapubic region. The patient also had fever and weakness. One week later, the reddish skin began to grow symmetrical nodules in the lymphatic gland region, resembling lymphadenitis

¹Medical Doctor at Tadulako Hospital, Palu

²Departement of Dermatology and Venereology FK UNTAD/RSUD Undata, Palu

*Corresponding to:

Akbar Pratama;
Medical Doctor at Tadulako Hospital, Palu;
akbar220993@gmail.com



Figure 1. Initial clinical presentation patient.



Figure 2. One week follow up of the clinical presentation of the patient

and felt painful. The patient was treated at one of the public health centers with oral medication and ointment. However, the lesion didn't improve. Then the nodules were ruptured, containing pus, with a fishy odor and tenderness.

The patient had a history of smoking in the past 20 years ago, the habit of shaving pubic hair once a week using a razor. Patient denied having a history of the same complaint, no other medical illness, no same complaints were found in the family, and the patient denied a sexual history of alternating same-gender partners. Patient worked indoor and rarely sweated. The patient's body weight is 58 kg, and height is 160 cm, therefore with a BMI of 22,7, which is in the normal category. All vital signs were within normal limits. Blood test result showed leukocyte $16,23 \times 10^3/\mu\text{L}$, hemoglobin 12,6g/dL, platelet $217 \times 10^3/\mu\text{L}$ and hematocrit 38,2%. Urea, creatinine, and blood sugar were within the normal limit (Table 1).

The initial clinical findings of fluctuant and suppurative lymph nodes, fever, and malaise were compatible with LGV's clinical presentation. Therefore, the patient was diagnosed and treated with doxycycline 100 mg twice daily. The differential diagnoses were included LGV and HS, based on

history taking and clinical appearance of multiple swelling in the suprapubic area. A serology test of *Chlamydia trachomatis*, bacterial cultures, and sensitivity tests is needed.

One-week follow-up, there were improvements such as a decrease in tenderness and pus production. From clinical examinations, lesions were improved within one week, and nodules had become ulcers with a yellowish discharge. In the ulcers, which was said to be an antibiotic tetracycline ointment, the patient took his initiative (Figure 2). The results were non-reactive for the *Chlamydia trachomatis* serology test, *Staphylococcus aureus* was found in bacterial culture, and antibiotic sensitivity was sensitive to doxycycline.

From history taking, clinical examination, laboratory results, *Chlamydia trachomatis* serology test, bacterial cultures, and sensitivity test, the working diagnosis of Hidradenitis suppurativa (HS) was made. The patient was treated with 2x100mg doxycycline and clindamycin gel based on the result of antibiotic sensitivity. The patient was given consultation and educational advice on the causes of the disease and emphasized the importance of maintaining hygiene, which is one of the risk factors.

DISCUSSION

Hidradenitis suppurativa (HS) is a chronic, recurrent inflammatory condition of the hair follicle that occurs in genetically predisposed individuals and is influenced by environmental factors, such as smoking and obesity. There are painful, deep-seated inflamed lesions in the body's apocrine gland-bearing areas, most commonly found on axillary, inguinal, and anogenital regions.^{3,6} The differential diagnosis of HS is extensive. Type of lesions should be differentiated from a primary cutaneous bacterial infection (abscesses, carbuncles or furunculosis) and rare diseases, such as lymphogranuloma venereum (LGV), that could present with both abscesses and sinus tracts.^{3,5}

Lymphogranuloma venereum (LGV) is a sexually transmitted disease caused by *Chlamydia trachomatis* that primarily infects the lymphatics, and it is endemic in East and West Africa, India, and Southeast Asia.^{1,7} LGV symptoms are classically divided into three stages: Local infection (primary stage), regional dissemination (secondary stage), and progressive tissue damage (tertiary stage). Unilateral or sometimes bilateral inguinal lymphadenopathy (buboes) is accompanied by headaches, fever, and migratory polymyalgia and arthralgia in secondary stages. Buboes are common in males but occur in only one-third of infected females.^{4,8} Our male patient showed bilateral

Table 1. Laboratory Result

Type	Result	Normal Range
Leukocytes	16.2 thousand/ μ L	3.8 – 10.6
Erythrocytes	4.4 million/ μ L	4.4 – 5.9
Haemoglobin	12.6 g/dL	13.2 – 17.3
Haematocrit	38.2 %	40 – 52
Platelets	217 thousand/ μ L	150 – 440
MCV	86.6 fL	80 – 100
MCH	28.6 pg	26 – 34
MCHC	33.0 g/dL	32 – 36
Blood Glucose	90.7 mg/dl	< 120
Urea	1.20 mg/dl	0.60 – 1.20 mg/dl
Creatinine	45 mg/dl	8 – 53 mg/dl

Table 2. The Hurley Stage Classification⁶

Hurley stage	Characteristics
I	Recurrent abscesses without scarring or sinus tract formation
II	Recurrent abscesses with scarring and sinus tract formation separated by normal skin
III	Recurrent abscesses, disuse scarring, and interconnecting sinus tracts with minimal

inguinal fluctuant and suppurative lymph nodes, fever, and malaise, leading to an initial diagnosis of LGV. While the differential diagnosis of this case was mainly HS and LGV, we excluded the diagnosis of LGV based on the serology test of *Chlamydia trachomatis*, bacterial cultures, and sensitivity tests. The results were non-reactive for the *Chlamydia trachomatis* serology test, and *Staphylococcus aureus* was obtained on bacterial cultures.

Clinical manifestations of HS are located on the inguinal that is initially characterized by the presence of tender subcutaneous nodules that, with time, the nodules may rupture, resulting in a painful lesion, secrete pus, and smelling discharge, should alert physicians. We propose that due to the similarities between HS and LGV located on inguinal, clinicians should be more aware of the disease and conduct through further anamnesis, physical and laboratory examinations to distinguish them. For patients with suspected HS, acute lesions may exhibit leukocytosis, and purulent drainage should be sent for bacterial cultures and sensitivity tests.^{1,4} Then *Chlamydia trachomatis* serology test is considered useful to support the diagnosis of LGV.⁹

The etiology of HS is multifactorial, including genetic predisposition, hormonal dysregulation, environmental, hygiene, cigarette smoking, and obesity but the exact etiology of HS is still unproven.^{1,10} Clinical aspect of HS is characterized by the development of tender, red nodules, which at first are firm but soon become fluctuant and

painful. The course varies among individuals from an occasional cyst in the axilla to diffuse abscess formation in the inguinal region.^{4,5} The patient, in this case, had a history of smoking in the past 20 years ago and had the habit of shaving pubic hair once a week with a used razor. The clinical sign showed bilateral nodules and ulcers around the genital, specifically in the lymph node area and scrotum.

The objective medical treatment of HS is to control the inflammation, and intercurrent infections by using the Hurley Stage Classification (Table 2).⁶ Antibiotics are the mainstay of treatment, especially for the early stages of the disease. Long-term oral antibiotics such as doxycycline (100 mg twice daily) and topical clindamycin lotion 0.1% may be beneficial and appear to offer control of milder lesions. Non-steroidal anti-inflammatory (NSAID) therapy and paracetamol could be appropriate for analgesic therapy³

CONCLUSION

HS must be differentiated from several diseases, such as common furuncles, typically unilateral and rare infections, including tuberculosis, sporotrichosis, actinomycosis, and LGV, that can be present with abscesses. Our case shows an unusual presentation of HS diagnosed as LGV. We established the diagnosis by history taking, clinical examination, and bacterial cultures, which led to the HS's diagnosis. The differential diagnosis of LGV was excluded via the serology test of *Chlamydia trachomatis* and sensitivity test for proper treatment. Clinicians must be aware of HS so they could provide diagnosis precisely, prevent the recurrent, and improve the prognosis in the future.

CONFLICT OF INTEREST

The authors affirm no conflict of interest in this study.

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AUTHOR CONTRIBUTION

The authors are equally contributed to the study's funding since the conceptual framework until reporting the results.

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