

Erysipelas of the Scrotum, A Rare Clinical Entity of Acute Non-Necrotizing Bacterial Dermohypodermatitis: A Case at CDTUB - Allada (Benin)

Fabrice AKPADJAN^{1,2,*}, Pierre KITHA^{1,2}, Laura DOTSOP^{1,2}, Ndembi YEOUNA^{1,2}, Fleurine LEKEULEM^{1,2}, Lotus HOTEJNI¹, Simplicite ESSOUN¹, Christiane ABIOLA¹, René FIODESSIHOUÉ¹, Julien VIANOU¹, Hector AISSI¹, Florencia do ANGO-PADONOU²

¹Service de Dermatologie-Vénérologie du Centre de Dépistage et de Traitement de l'Ulcère de Buruli d'Allada, Bénin

²Faculté des Sciences de la Santé de Cotonou, Université d'Abomey-Calavi, Bénin

ABSTRACT

Erysipelas is an acute bacterial infection of the dermis and hypodermis caused by group A beta-hemolytic streptococci. The leg is the most common site of infection these days. We report a case of erysipelas of the scrotum in Benin. A 45-year-old carpenter with insulin-dependent diabetes presented with a painful swelling of the scrotum that had been present for 3 days in a febrile context. He had been self-medicating with a non-steroidal anti-inflammatory drug prior to admission. Clinically, there was a warm, painful oedema of the entire scrotum, which appeared roughly globular with erythematous, shiny skin with a non-scaly surface. There were two bilateral inflammatory inguinal adenopathies. The diagnosis of scrotal erysipelas was retained. The patient was admitted to hospital and started on a course of antibiotics based on oral amoxicillin-clavulanic acid and a moist suspensory dressing. Faced with clinical worsening, with the appearance of ulcerations and suppuration (phlegmon), the treatment protocol was reviewed and the oral amoxicillin-clavulanic acid was replaced by a double intravenous antibiotic treatment with ceftriaxone and metronidazole. A urological opinion was sought; a scrotal skin incision was made and daily dakin dressings and packing were applied. Evolution was progressively favourable, with almost complete healing and no functional sequelae after one month of hospital care. The dermatologist should always remain vigilant for Fournier's gangrene in patients presenting with erysipelas of the scrotum and be prepared for immediate intervention.

Keywords: Erysipelas, Scrotum, Diabetes, NSAIDs, Phlegmon

INTRODUCTION

Erysipelas is an acute bacterial infection of the dermis and hypodermis associated with clinical inflammation. It is generally caused by group A beta-hemolytic streptococci. Streptococcal toxins also play a role, which may, in part, help explain the clinical inflammation [1]. Leg erysipelas is the main clinical type encountered. The face, arm and upper thigh are the other most common sites of erysipelas. This is a potentially serious, life-threatening medical emergency [2]. There are few reports

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*Corresponding Author

Dr. Akpadjan Gbèmawonmèdé Fabrice

Associate Professor of Dermatology-Venerology, Faculty of Health Sciences of the University of Abomey-Calavi, 09BP: 441 Cotonou, Benin, Tel : (+229) 01 97 07 44 09, Email: barfice@yahoo.fr

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of erysipelas occurring in the scrotum. Genital involvement is most often diagnosed in the complication phase, when Fournier's gangrene is present. It is a necrotizing fasciitis of the male external genitalia, which constitutes a medical-surgical emergency. We report a case of erysipelas of the scrotum from Benin, successfully treated in a dermatology and venereology unit.

CASE PRESENTATION

This case involved a 45-year-old carpenter of Beninese nationality with a history of type 1 diabetes mellitus, who had been on insulin for two years. He consulted the Dermatology-Venerology Unit of the Buruli Ulcer Screening and Treatment Centre in Allada for a painful swelling of the scrotum that had been developing continuously for 3 days, in a febrile context. This swelling had been preceded 3 days before by a painful solid lesion of the scrotum, which had prompted the patient to take a non-steroidal anti-inflammatory drug (NSAID) containing ibuprofen, with relative relief. The onset of burning and tension-type pain prompted the patient to seek specialist care in our department.

On examination, the patient's general condition was slightly altered but he was hyperalgesic. There was a fever of 38°C, and a warm, painful oedema on superficial palpation

and contact of the entire scrotum, which appeared to be roughly globular, 6 cm x 8 cm in diameter, with a shiny, erythematous skin surface that was not scaly, with a negative transillumination test and clear borders (Figure 1). There were two bilateral inflammatory inguinal adenopathies. In addition, the right lateral border of the scrotum opposite the right inguinal fold was the site of two small erosive and crusty lesions (Figure 2). The rest of the clinical examination was normal. Blood count and retroviral serology (HIV) were normal. Given this characteristic clinical picture, the diagnosis of erysipelas of the scrotum was retained. The patient was admitted to hospital and started on antibiotic therapy with oral amoxicillin + clavulanic acid and a moist suspensory dressing. Initially, the patient developed scrotal ulcers and a phlegmon after 72 hours in hospital (Figure 3). This led to a change in the treatment protocol, replacing the oral amoxicillin-clavulanic acid with a double intravenous antibiotic regimen of Ceftriaxone and metronidazole. A urological opinion was sought; a scrotal skin incision made and daily Dakin dressings and packing applied. With this treatment, the evolution was progressively favorable (Figure 4, 5). Almost complete healing with no functional sequelae was achieved after one month of hospital follow-up (Figure 6).



Figure 1. Scrotal erysipelas (image of the first consultation).



Erosive lesions (entry point of streptococcus)

Figure 2. Scrotal erysipelas with the entry point (image of the first consultation).



Figure 3. Scrotal erysipelas complicated by a phlegmon with multiple ulcers.



Figure 4. Scrotal erysipelas complicated by a phlegmon (image taken two weeks after scrotal incision).



Figure 5. Scrotal erysipelas complicated by a phlegmon evolving favorably under treatment.



Figure 6. Almost healed scrotal erysipelas complicated by a phlegmon.

DISCUSSION

Few epidemiological data relating to erysipelas of the male genital organs have been described in literature [2]. The rarity of this entity in the existing literature may be explained by the fact that sex is taboo in our practice. Patients wait for complications such as Fournier's gangrene before going to the hospital. For our patient, two factors may explain the occurrence of this erysipelas. First, his diabetic condition and, second, the local heat associated with his carpentry trade and the fact that he wore underwear that was too tight. Diabetes is known to be a factor in skin infections caused by common germs. Intertrigo of the large folds often described in diabetics could explain the occurrence of this erosive and crusty lesion, which is the entry point for streptococcus in this patient. Local heat due to wearing tight underwear can also generate pruritus, resulting in scratching, which can leave a skin break and is also a gateway for streptococcus. This clinical presentation draws our attention to the various factors that contribute to the occurrence of this condition in patients [3,4]. From all the above, it is the evolution of this clinical form towards Fournier's gangrene that is the

clinician's greatest concern. This is a serious complication which can lead to irreversible organ function and even be life-threatening. Fournier's gangrene is necrotizing fasciitis and is therefore a medical and surgical emergency. In our patient, even though his diabetic background and self-medication with NSAIDs explain the rapid evolution towards a phlegmon, we were able to avoid this dreadful complication. This is further proof of the risk incurred by all patients suffering from erysipelas, especially when it affects the body's noble organs and conditions such as diabetes. Erysipelas is a medical emergency that requires careful patient monitoring. Self-medication with NSAIDs and depigmentation, as well as other causes of pruritus (diabetes, pre-existing pruritic dermatoses, etc.) are all factors that can lead to erysipelas, or even complications. The only way to prevent the onset of erysipelas is for patients to comply with hygiene measures and receive prompt, appropriate treatment for any dermatosis likely to lead to impetiginization. Indeed, when erysipelas is diagnosed and managed late, it can be fatal for patients. The occurrence of phlegmon was a sign of severity in our patient, which caused us to fear the onset of Fournier's

gangrene, which is a necrotizing fasciitis entity known as focal sepsis by certain anglosaxon authors [5-7].

CONCLUSION

Erysipelas can affect any organ or segment of the human body, and the genitals are no exception. When erysipelas occurs in our contexts, it is always necessary to carry out a police-like interview of patients, which in most cases enables us to identify an entry site, however small, or even one that has already healed. The questioning must also enable the identification of favoring and aggravating factors; most of the time, steroidal or non-steroidal anti-inflammatory drugs are incriminated. The clinician must always be wary of the onset of Fournier's gangrene in a patient presenting with scrotal erysipelas, and be prepared to intervene when necessary.

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None.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest

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