

Fascist Leg Necrosis at the Bocar Sidi Sall University Hospital (BSS) in Kati (Mali)

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How to cite this paper: Diarra, A., Koné, A., Traoré, A., Kéïta, K., Tounkara, I., Traoré, I., Traoré, O., Karembé, B., Konaté, M., Coulibaly, O., Togola, M., Diallo, D., Traoré, A., Dembélé, B.T., Diakité, I. and Togo, A. (2022) Fascist Leg Necrosis at the Bocar Sidi Sall University Hospital (BSS) in Kati (Mali). *Surgical Science*, **13**, 119-123.

<https://doi.org/10.4236/ss.2022.133016>

Received: January 24, 2022

Accepted: March 18, 2022

Published: March 21, 2022

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Abstract

Necrotizing fasciitis is a bacterial dermo-hypodermatitis of necrotizing type with involvement of the superficial fascia of the muscles. We report the case of a 50-year-old patient with necrotizing fasciitis of the left leg following erysipelas. **Clinical Case:** A 50-year-old patient, received at the emergency department for necrotizing wound of the left leg, evolving for 25 days. The examination of the patient made it possible to find: an alteration of the general condition with a WHO score classified stage II. A necrotizing wound of the lower 2/3 of the left leg and the dorsal side of the left foot allowing pus to flow in places, the pedious pulse was well perceived, lymphadenopathy at the root of the homolateral thigh. The complete blood count made it possible to objectify a predominantly neutrophil hyperleukocytosis greater than 10,000/mm³. We first carried out a complete debridement of the necrotic tissues, in a second time we took the patient back to do the autotaneous graft. The surgical follow-up was simple. **Conclusion:** Necrotizing fasciitis is a serious infection, management is multidisciplinary.

Keywords

Necrotizing Fasciitis, Lower Limb, Kati, Mali

1. Introduction

Necrotizing fasciitis is a bacterial dermo-hypodermatitis of the necrotizing type with involvement of the superficial fascia of the muscles [1]. It is mainly due to hemolytic streptococci of group A. It is a serious, progressive, mutilating and of-

ten fatal infection. Germs have high toxinogenic potential. It is a therapeutic emergency with a mortality varying between 19% and 49% according to the literature [2].

The impairment of the lower limb is not exceptional. It is a complication of erysipelas of the lower limb that has not been managed properly. We report the case of a 50-year-old patient with necrotizing fasciitis of the left leg following erysipelas.

2. Clinical Case

Patient of 50 years peasant, from a rural environment, received at the emergency services for necrotizing wound of the leg, evolving for 25 days following a wound of the sole of the foot occurring accidentally. The examination of the patient made it possible to find: a sharp pain, insomnia of the left leg, the alteration of the general condition with a score of the WHO classified stage II according to the WHO, the blood pressure was at 11/08 cmhg, the fever with a temperature at 39°C, the respiratory rate at 18 cycles/minute, heart rate at 90 beats/minute, conjunctivae were pale. A necrotizing wound of the lower 2/3 of the left leg and the dorsal side of the left foot allowing pus to flow in places (**Figure 1**), the pedinous pulse was well perceived, lymphadenopathies at the root of the homolateral thigh. In addition, there were no sensory-motor disorders or bone lesions.

The Biological Assessment included: the complete blood count which made it possible to objectify a hyperleukocytosis predominantly neutrophil greater than 10,000/mm³, anemia with a hemoglobin level of 8 g/dl. The C-reactive protein was greater than 6 mg. The results of the biological examination are in **Table 1**. We did not find any other co-morbidity factors. A sample of pus was carried out in search of germs which made it possible to highlight streptococci and staphylococci sensitive to 100% amoxicillin + Clavulanic acid, imipenem and Gentamicin. The rest of the preoperative assessment was without particularities.



Figure 1. Necrotizing fasciitis.

Gestures performed: initially we proceeded to the complete debridement of the necrotic tissues in the operating room under spinal anesthesia, washing from the wound with hydrogen peroxide and saline, hemostasis of vessels, dressing. The necrosectomy operating rooms were sent for the anatomico-pathological examination and the necrosis was confirmed at histology by objectifying a hypodermis that is the site of edematous inflammation, rich in polymorphonuclear cell and extensive necrosis of the fascia muscular, triple antibiotic therapy, correction of anemia by blood transfusion. The wound dressing was daily until the wound was clean and the infectious signs disappeared (**Figure 2**). In a second step we took the patient back to the block to do the autologous graft with a dermatoma (**Figure 3**). The grafts were taken from the right thigh. We did the 1st dressing on the 6th day post auto transplant, the consequences were simple. On the 15th postoperative day, the evolution was very favorable (**Figure 4**). At 1 month after self-transplant the wound was completely healed.

3. Discussion

Necrotizing fasciitis is a serious, progressive, mutilating and often fatal infection. It is a therapeutic emergency with a mortality varying between 19% and 41%

Table 1. Biology.

Elements	Résultats
Haemoglobin	8 g/dl
Leukocyte	15.000/mm ³
C-reactive protein	8 mg
Glycemia	5, 10 mmol/l
Serum creatinine	98 Umol/l
Prothrombin levels	100%



Figure 2. Post necrosectomy.



Figure 3. Autologous skin transplant.



Figure 4. 10th day post-autograft.

according to the literature [2] [3]. The infection begins with necrosis of the hypodermis with vascular thrombosis and then spreads secondarily to the underlying superficial fascia. It is rare in our daily practice but it is common in countries like Canada or 90 to 200 cases per year [4].

At ETAS UNIS, for invasive streptococcus A infections, 5% to 10% of the forms had necrotizing fasciitis [5]. All areas of the body can be affected by this fasciitis but the most common localization is the lower limb [2]. Other cervical and thoracic localizations have been described by some authors [5]. Group A *hemolytic Streptococci* and *Clostridium perfringens* are the germs responsible [5] [6]. Recognized risk factors are: an age over 50 years, diabetes, nonsteroidal

anti-inflammatory drugs, hemopathies, cancers, immunosuppressive treatments, chemotherapy, alcoholism and drug addiction [4]. Early diagnosis and initial intake are the two main prognostic factors [7] [8]. Antibiotic therapy should be started without delay, even before microbiological results are obtained. This antibiotic therapy complements the surgery. Its goal is to limit the progression of the infection. We did a triple antibiotic therapy: Ceftriaxone, Gentamycin, Metronidazole before the result of the antibiogram, then adapt to the result. We proceeded to debridement the necrotic tissues. Restorative surgery was performed at the 25th post-necrosectomy by doing an autologous skin transplant. After these lesions heal, they may remain retractile sequelae affecting the functionality of the limb [9].

4. Conclusion

Necrotizing fasciitis is a serious infection, management is multidisciplinary, early diagnosis and treatment can significantly reduce mortality.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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