

Corticosteroid Sclerotherapy of Morel-Lavallée Syndrome: about a Case at the Reference Health Center (CSRéf) Commune III of Bamako

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Abstract

Case Report

Morel-Lavallée syndrome corresponds to a serolymphatic effusion secondary to tangential trauma in relation to a richly vascularized tissue. It is a pathology little mentioned in the medical literature. We report the case of a female patient, victim of a road traffic accident which caused a Morel-lavallée lesion and who was successfully treated by sclerotherapy with corticosteroid (triamcinolone). There is currently no universally accepted treatment algorithm for the management of Morel-Lavallée lesions. Corticosteroids constitute a valid therapeutic option as a sclerosing agent in the treatment of this pathology. **Conclusion:** Corticosteroids constitute a valid therapeutic option as a sclerosing agent in the treatment of Morel-lavallée syndrome with satisfactory results.

Keywords: Sclerotherapy, corticosteroid, Morel-lavallée syndrome.

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INTRODUCTION

Morel-Lavallée syndrome corresponds to a serolymphatic effusion secondary to tangential trauma in relation to a richly vascularized tissue. The morphological aspects vary depending on the duration of evolution and the possible organization of a fibrous capsule [1]. It was first described in 1863 by the French surgeon Victor Auguste François Morel-Lavallée [2].

The most common location is the greater trochanter but other regions may be interested such as the thigh, the pelvis or even the knee. In addition to the aesthetic consequence, there is a significant risk of secondary infection [3].

It is a pathology rarely mentioned in the medical literature [4], so we report this case which was received and treated in our department.

OBSERVATION

This is an obese black patient, aged 34, with an obstetric history of 3 pregnancies including 2 deliveries and an abortion and with no other medical-surgical history. She came to the trauma department complaining of swelling on the outer side of the right thigh. The history of the illness dates back 4 months when she had

a public accident. Emergency transport to Ségou hospital (regional hospital) and then to Mali hospital (national hospital), where she spent 14 days in the intensive care unit for chest trauma and multiple rib fractures. It was when she left the hospital that she noticed a slight swelling on the outer side of her thigh. She returned to the hospital where an evacuation puncture and pressure bandage were performed. When the bandage is removed, the swelling reappears in a few days but much larger. The same procedure is repeated and the swelling always increases in volume. Faced with this table, the patient consults us for a new opinion. Clinical examination reveals a large swelling on the outer surface of the right thigh (Fig 1). It was non-painful and very fluctuating on palpation, approximately 20 cm long, with areas of bruising and abrasions. The x-ray does not reveal any bone lesions. Ultrasound examination visualizes a large, well-demarcated fluid collection above the muscle fascia.

The history of the disease, the clinical examination and the ultrasound characteristics led to the conclusion of a post-traumatic Morel-Lavallée effusion. Management was semi-conservative with evacuation puncture and intracapsular corticosteroid injection.

The patient was brought to the operating room, after asepsis and antisepsis, the approach fields were

placed and the incision area was infiltrated with 2% lidocaine (Fig 2). The effusion was therefore evacuated through an incision of approximately 1cm (Fig 3), we injected 3 ml of triamcinolone into the capsule then closed with a stitch followed by a pressure bandage (Fig

4). After one week, the bandage was removed (Fig 5) and replaced with a thigh support for 3 months with satisfactory results without recurrence.

Image of the CSRef CIII service



Figure 1: Morel-Lavallée effusion of the right thigh

Image of the CSRef CIII service



Figure 2: Infiltration of the surgical site with 2% lidocaine

Image of the CSRef CIII service



Figure 3: Drainage of the effusion

Image of the CSRef CIII service



Figure 4: Compression bandage of the thigh

Image of the CSRef CIII service



Figure 5: Removal of the bandage after one week

DISCUSSION

Morel-lavallée effusion is a rare pathology, resulting from a closed traumatic separation of the skin and subcutaneous cellular tissue from the fascia [5]. This phenomenon causes a rupture of the perforating blood and lymphatic vessels, creating a cavity filled with blood, lymph and necrotic tissue. Sometimes, this syndrome complicates a cosmetic surgery procedure (plasty or liposuction for example). The neo-cavity will continue to increase in volume due to repeated trauma and/or capillary bleeding and the osmotic effect linked to the local inflammatory process. After the acute phase, the blood is replaced by a hypocoagulable serosanguinous fluid. The cavity becomes organized and a fibrous capsule, made up of hemosiderin, fibrin and granulation tissue, hinders spontaneous resorption and leads to a slow, continuous expansion of the collection [3]. There is currently no universally accepted treatment algorithm for the management of Morel Lavallée lesions, however, the available literature establishes the following guidelines [6]. In small lesions, conservative treatment is feasible by draining the collection and using compressive bandage systems. In complex lesions, particularly in the presence of pseudocapsule formation, surgery is the most widely accepted treatment. Recently, alcoholic or doxycycline sclerotherapy techniques have proven to be valid [7].

In our case, it is a conservative treatment (sclerodesis) using corticosteroid as a sclerosing agent. In the same way as doxycycline, alcohol and povidone-iodine, sclerosing agents have the effect of causing fibrosis of the capsule, which leads to obliteration of the dead space.

CONCLUSION

Corticosteroids constitute a valid therapeutic option as a sclerosing agent in the treatment of Morel-

Lavalle syndrome. But given the potential risk of infection, we cautiously suggest its use under strict asepsis and antisepsis measures.

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