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MOREL LAVALLEE LESION LEFT THIGH– A RARE CASE REPORT

General Surgery

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ABSTRACT

Morel lavallee lesion is a soft tissue de-gloving injury which will occur following a high energy trauma resulting from shearing force and always remains un noticed because of its rare presentation. Most common site being buttock, thigh and hip region. Clinically it presents with soft fluctuant swelling to skin bruising or abrasions which is always missed and is real challenge for diagnosing it.

Here we report a case of 27 year old who came with alleged history of RTA and sustained primary injury to left shoulder which was diagnosed to have a left scapular fracture and was managed by a native treatment since patient was not willing for any orthopaedic intervention and presented to us with complaints of swelling of left thigh which was noticed by the patient himself 2 days after the incident. USG thigh was done which showed subcutaneous edema in left lateral aspect of proximal thigh. Subsequently MRI thigh was planned to rule out any soft tissue injury and MRI left thigh showed morel lavallee lesion left thigh. Open drainage was done and around 4.5 litres of serosanginous fluid was drained and a drain was placed and closed. This case is presented for its rare presentation in trauma patient which will remain undiagnosed unless known otherwise.

KEYWORDS

Morel lavallee lesion left thigh, MRI thigh.

INTRODUCTION

Morel lavallee lesion is a closed soft tissue degloving injury which occurs due to shearing force or tangential force exerted by a high energy trauma where a part of subcutaneous tissue is separated from the underlying fascia creating a potential dead space which will allow place for all the hemolymphatic and necrotic fat to collect. Its diagnosis is usually missed by the clinician because it will initially present with a skin bruising with later development of soft tissue swelling. If not treated at a right time it will end up in deadly complications including septicemia. The treatment consist of early identification of the condition and drainage of fluid either by a percutaneous drainage or open debridement and aspiration.

CASE REPORT

27 year old male who presented with alleged history of RTA by skid and fall and sustained injury to left shoulder with diagnosed scapular fracture and was managed by native treatment outside and presented to us with complaints of swelling over anterolateral aspect of left thigh which is gradually progressive in size and associated with pain and not able to move out of bed. General physical examination showed multiple abrasion over left lower abdomen and anterolateral aspect of thigh with skin ecchymosis. Patient also had a shoulder cast put up by the native treatment for left scapular fracture. Local examination showed a diffuse swelling involving the anterior, lateral and posterior aspect of left thigh extending from the left lower abdomen to above left knee which is not warmth and not tender with fluctuation positive. Swelling becomes more prominent on standing posture. ROM of bilateral hip and knee were within normal limits. Per abdomen examination showed a mobile, soft to firm mass palpable over left lower abdomen

FIGURE 1 – CLINICAL PICTURE OF THE PATIENT WITH SOFT TISSUE SWELLING THIGH

USG ABDOMEN

Showed lower abdominal wall edema.

LEFT THIGH USG WITH VENOUS AND ARTERIAL DOPPLER

Subcutaneous edema in left lateral aspect of proximal thigh with no evidence of occlusion / stenosis / DVT.

MRI THIGH

Tear in the gluteal aponeurotic fascia with a large collection having fluid-fluid levels noted in the iliotibial band and posterolateral aspects of gluteal region.

Interstitial fluid with edema noted in the gluteal muscles and along the posterolateral aspects of hip region possibility of Morel-Lavallee Lesions

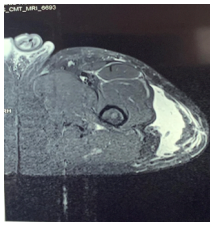

FIGURE 2A- MRI PICTURE SHOWING SOFT TISSUE SWELLING THIGH

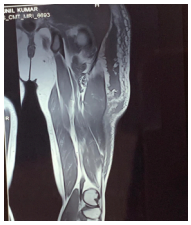

FIGURE 2B- MRI PICTURE SHOWING SOFT TISSUE SWELLING THIGH

Patient underwent drainage of fluid through open method and around 4.5 litres of seronsanginous fluid was aspirated with minimal blood clots. Drain was kept and wound closed with compression bandage..

FIGURE 3- PICTURE SHOWING THE INCISION MADE TO DRAIN THE FLUID

FIGURE 4- PICTURE SHOWING ASPIRATED FLUID INTRAOPERATIVELY

DISCUSSION

Morel lavallee lesion is a rare presentation of a post traumatic closed degloving injury of soft tissue following a high energy trauma resulting from shearing force or tangential force. It is most commonly associated with peri-pelvic fracture following trauma. However few cases of low velocity injury associated with sports trauma like football and wrestling have also been reported to cause this lesion. Most common location include hip, thigh and buttock region. Other places reported include scapular, lumbar and prepatellar. Presentation can oocur in any age and is always presentated late because of the lack of knowledge about the condition. In long standing cases it is often misdiagnosed clinically as a soft tissue neoplasm.[4,5]

The shearing force results in potential dead space between the subcutaneous tissue and fascia where hemolymphatic fluid and necrotic fat accumulates. The amount of fluid collected depends on site of injury and time interval following injury. [14]

Morel lavallee lesion occurs in four stages :

Separation of dermal layer from underlying fascia. Next, injured subdermal vascular plexus produces fluid collection between the layers. After this , accumulated content is replaced by serosanginous fluid as the lesion increases in size. Finally if left untreated it results in pseudocapsule formation.[9]

Clinically it presents as a soft tissue swelling which will be fluctuant and surrounding skin changes with ecchymosis , necrosis and underlying deformity if any. The lesion is often identified by the patient themselves. The differential diagnosis of the condition is often soft tissue tumour. Radiological investigation including MRI willl be ideal for diagnosing the condition. The classical radiographic feature for diagnosing the lesions include lesion appearance, shape, T1-weighted and T2-weighted MRI characteristic, presence and enhancement of a capsule and lesion. Other radiological modalities include USG and CT might be done.[8,9]

Treatment varies from percutaneous drainage to open debridement for drainage of fluid at the earliest possible with placement of drain which will be removed over the consequetive postoperative day when the drain level is less than 30ml. If not done at right time it will result in infection, pseudocapsule formation , necrosis and could even be fatal with wound sepsis .[1]

CONCLUSION

Morel Lavallee lesion is reported for its rare presentation and is also sparsely reported in literature This case is often missed by the clinician because of the unawareness of the condition in treating trauma patients. Its knowledge is required for proper diagnosis at right time and apprpriate treatment to prevent deadly complications.

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