

Traumatic Morel-Lavallee Lesions: Often Missed but Never Forgotten

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Background

- This case series describes three patients all involved in some type of traumatic event who all developed a post traumatic de-gloving like injury called a Morel-Lavallee of the lower extremities.
- These lesions are the result of traumatic avulsion between the muscular fascia and subcutaneous tissue causing fracture and extravasation of blood in a potential space creating a hematoma. Early diagnosis of the Morel-Lavallee lesion is paramount because missed or delayed diagnosis can result in skin necrosis and abscess.
- First described in 1853 but since the phenomena has a plethora of diagnostic imaging modalities which can aid with diagnosis. Currently, magnetic resonance imaging is the best imaging modality but the lesion can also be seen on ultrasound and computed tomography.

Objective

- A discussion of three patients with Morel-Lavallee lesions, management of these lesions and discussion of the relevant literature of the same.

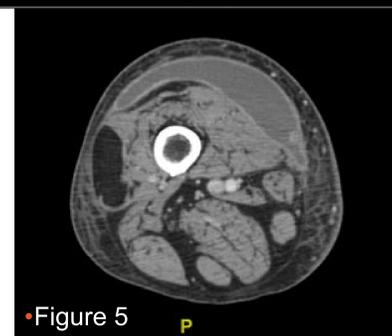
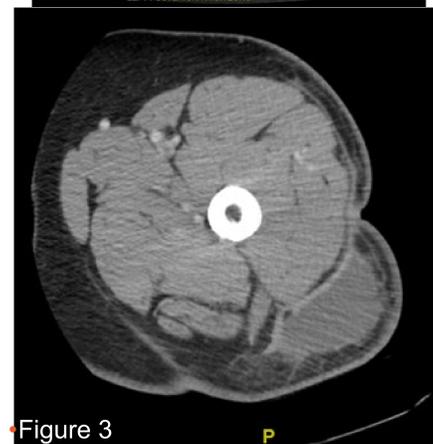
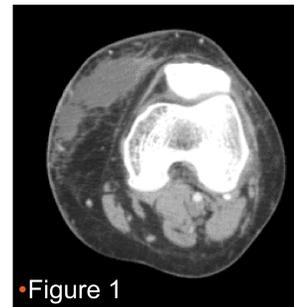
Case 1

- 42-year-old female who presented to the trauma service after a motor vehicle crash two weeks prior to arrival. Patient complained of swelling to the left knee and foul odor to the same. Patient was found to have an 8.3 cm subcutaneous fluid collection that was very suspicious for abscess or infected hematoma which was surgically drained (Figure 1).

Case 2

- 54-year-old male who presented to the trauma Bay as a level 1 trauma after a motor vehicle crash and was found to have an apparent hematoma or abscess of the left thigh three days later which was drained. The patient had also complained of paresthesia of the overlying skin. An ultrasound demonstrated complex fluid tracking in the subcutaneous tissue (Figure 2). Patient was taken to the operating room and found to have a complex Morel-Lavallee lesion which was successfully drained with a Penrose drain. The patient subsequently recovered well.

Figures



Case 3

- 55-year-old male who presented to the emergency department after being run over by a tractor. Twenty-two days later, the patient had buttock and lumbar hematoma which was evacuated as an 18 x 4.5 x 19 cm Morel-Lavallee lesion (Figure 4). Two days later, the patient had left thigh swelling and had another Morel-Lavallee lesion measuring approximately 6.6 x 13.1 x 4.4 cm which was more consistent with an abscess or complex hematoma (Figure 4). Both lesions were evacuated and negative pressure wound therapy applied. The patient recovered well and was discharged home.

Case 4

- 66-year-old male who presented as a level 1 trauma after a motor vehicle crash. He had multiple rib fractures and was admitted to the hospital. The patient was discharged four days later; however, he came back to the hospital approximately one month after his discharge with right medial thigh pain. The patient was found to have a complex thigh hematoma and abscess consistent with delayed Morel-Lavallee lesion (Figure 5). This was surgically drained and packed. The patient was optimized after his surgery and was discharged home.

Discussion and Conclusion

- The Morel Lavallee lesion is a curious phenomenon that is often discovered late and a trauma patient's hospital course. The sequelae of delayed diagnosis is severe with significant morbidity, skin necrosis and abscess. Recognizing Morel-Lavallee lesions and timely diagnoses are critical to the morbidity of patients with soft tissue injuries of any kind. Treatment is in most cases urgent surgical drainage and wound management.

References

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