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Case Report

Managing neglected Morel-Lavallée lesion of thigh in a limited resource environment: a case report and review of literature

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ABSTRACT

Morel-Lavallée lesion is a special form of a traumatic event that consists of an internal degloving injury to a body part. The injury is not very common and limited to numerus case reports and series described in the literature. Long standing and neglected cases are rarer and owe their neglect to poor attention to the presence of the entity as significant one. There are various treatment modalities described for the mangement of this condition none with an evidence of superiority over the other. We hereby describe our experience of a six weeks old neglected condition managed successfully in limited resource environment.

Keywords: Morel-Lavallée lesions, Closed degloving injury, Management, Trauma

INTRODUCTION

A closed degloving injury with shearing between hypodermis and underlying fascia has been described as Morel-Lavallée Lesion (MLL).[1] The condition mostly but not exclusively is associated with pelvis and thigh injuries. Soft tissue cyst, pseudocyst, chronic expanding hematoma, Morel-Lavallée seroma are synonymous as well as presentations of this conditions.[2] It usually presents as a boggy soft tissue swelling involving an area of underlying injury most commonly upper thigh and hip region. The swelling and underlying cavity is filled with serous effusion and fatty particles from subcutaneous tissue, blood and lymph. An early diagnosis and management ensures uncomplicated recovery free from infection and soft tissue or skin necrosis as a result of a neglected or long standing lesion.[3]

CASE REPORT

A 42 year old lady was presented to us with history of fall from a moving three wheeler leading to injury to her left side of body. She had blunt injuries to her thigh and difficulty moving her elbow apart from multiple superficial abrasions. The pelvis and thigh had no bony injury on radiographs. There was no other injury reported significant except a short period of loss of consciousness with minor wounds over left side of her scalp. She was brought to the hospital by fellow passengers. She was admitted and managed for head injury as expectant treatment. Her computerized tomography scan (CT scan) were unremarkable and she was cleared from neurosurgery side after ten days of conservative management while she recovered. She was chiefly concerned about her elbow which was diagnosed as displaced olecranon fracture after radiological evaluation. She was given a plaster back slab all this while till anesthesia fitness was ensured. She was advised open reduction and internal fixation for her elbow injury. After informed consent and aseptic precautions she was operated in a standard manner for the displaced olecranon fracture with tension band wiring and protection plaster splint. She was complaining of her left thigh wound to start swelling that was increasing in size lately. The swelling was boggy with probable collection of some fluid as experienced by the patient (Figure 1). As the swelling now became painfully big, she told us for the

first time about the swelling. After due clinical examination correlating with a history of frictional, tangential force a provisional diagnosis of Morel-Lavallée lesion was established. The patient was poor so the advance imaging modality like MRI was withheld. A ultrasonography however was a cheap option to confirm presence of collection of about a litre in perifascial cavity. The patient had no history of fever or other 'red flags' during entire period till this time.

Figure 1: Clinical picture of the affected thigh and lesion.

An aspiration with wide bore syringe under aseptic precautions was carried out and approximately 1000 ml. of sero-sanguinous collection was evacuated (Figure2). The collection also contained fat loccules and debris (Figure 3). The aspirate was sent for culture sensitivity and bacteriological evaluation. A good compressing occlusive dressing was applied and patient was managed conservatively with broad spectrum antibiotic coverage. The reports of the examination were unremarkable and patient recovered and had no complications related or remote to the swelling and procedure. She had no recurrence of the swelling as seen on follow up till one year. Her elbow fracture united well and in due course of time with good functional outcome.

Figure 2: The aspiration process with fluid evacuation.

Figure 3: The sero-sanguinous collection with fat macromolecules.

DISCUSSION

The condition bears name of a French doctor Maurice Morel-Lavallée in 1853 when he described the condition in upper lateral aspect of thigh. The usual clinical presentation is an enlarging and painful swelling over the lateral upper thigh. Disruption od underlying blood vessels due to tangential force leads to formation of a cavity by separation of perifascial tissue and is filled with blood, lymph and tissue debris of local trauma.[3,4] We attempted to clinically diagnose the condition with history of shearing forces to left side of her thigh region and boggy fluid filled expanding swelling. The swelling was not warm or showing any sign of impending infection. The ultrasonography was done to help in diagnosis as a subcutaneous swelling with huge collection. Magnetic Resonance Imaging (MRI) provides most detailed evaluation as described by studies and it also helps rule out other potential mimics.[5] A classification system based on MRI has been described by Mellado and Bencardino.[6] It also helps to assess the associated presence of capsule that has bearing on choosing closed versus open drainage. The MRI could not be done due to resource and affordability issues. It requires to be properly investigated in long standing cases especially in advanced age group where at times it may simulate a neoplastic lesion.[7]

We chose syringe evacuation of fluid under aseptic condition followed by compressive bandaging. We did not go for open as we did not know the nature of collection beforehand. Certain cases have shown increased post-operative bleeding requiring reoperation after open methods and suggestion has been made to select proper method with due caution.[8] Our case responded well to simple fluid evacuation and compression modality of treatment and had no complication including recurrence till one year of follow up.

CONCLUSION

The uncommon injury patterns like MLL can be assessed clinically in certain cases to an accurate diagnosis and managed successfully even in limited resource scenario with simple techniques and good follow up.

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