Percutaneous Quilting Technique reduces the risk of recurrence in Large Morel-Lavallée Lesions

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Aim:

To describe the technique of percutaneous quilting in large Morel Lavallee lesions that reduce the risk of recurrence .

Introduction:

Morel-Lavallée lesions (MLL) are closed degloving injuries resulting from trauma, where the skin and subcutaneous tissue are separated from the underlying fascia, creating a potential space that can fill with blood, lymphatic fluid, and fat. Historically, managing MLL involved compression bandages, drainage, open surgical debridements, and suturing, which often resulted in high recurrence rates of seromas and other complications.

Percutaneous quilting is a surgical technique primarily used in wound closure and cosmetic procedures, involving minimally invasive suturing to eliminate dead space and promote better healing.

Design :

Prospective single-centre case series.

Participants:

Patients with MLL visiting our hospital between January 2012 and May 2023

Procedure:

All patients were evaluated as per our institute protocol and underwent spinal or general anesthesia. Pre-operative written consent was obtained. Universal precautions and time-out protocol were followed in the operating room.

Surgical Technique:

1. Aspiration and sampling for culture sensitivity.
2. Strategic incisions to reach the entire lesion.
3. Marking the boundaries of the lesion.
4. Drainage and evacuation of hematoma/seroma followed by debridement if necessary.
5. Percutaneous quilting suture placement.
6. Confirmation of tissue approximation.
7. Drain placement.

Outcomes:

In our study, 25 patients with MLL lesions were treated, including 20 males and 5 females with an average age of 22 (range 16-52). Lesions varied in length from 12 to 60 cm, with an average time gap of 7 days (range 2-60 days). Patients were followed up weekly for 4 weeks, then monthly for 6 months, and finally at the end of the year.

Results:

All 25 patients with MLL were treated with the described surgical procedure, with the majority of lesions located on the trochanter and lateral thigh (19), followed by knees (4), and elbow (2). Concurrent fractures were present in several cases, with six requiring surgical bone fixation through the MLL. All 25 patients' wounds healed without complications.

Conclusion:

The percutaneous quilting technique effectively addresses the primary pathology of MLL, resulting in low recurrence rates and successful tissue apposition.

References:

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