Patient with continued left gluteal swelling despite multiple ultrasound-guided aspirations

A Real Pain in the Rear- Recurrent gluteal swelling after fall from significant height

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History

52 year old male presented with a recurrent left gluteal mass.A month prior, he fell 25 feet off a tree stand onto his left side without major injuries besides a sprained wrist and ankle. Within a few days, he noted development of a large bruise at his left buttock which later developed into a circular, indurated area the size of a softball.

Physical Exam

Left buttock: non-painful 8x7 cm circular, non - erythematous, indurated lesion at the superomedial aspect without overlying paresthesia or hypoesthesia.

Ultrasound evaluation with 12Mhz linear transducer. revealed an anechoic, compressible mass lying between the superficial subcutaneous and deep gluteus maximus layers. Initial ultrasound-guided aspiration yielded 110 ml of serosanguineous fluid. Within a week, two further aspirations each yielded > 80 ml of similar fluid with development of fibrous, hypoechoic septations throughout the lesion. A total of 600ml of fluid were aspirated over the course of 6 weeks. 2 CTs were taken at various post-injury intervals as well.

Differential Diagnosis

1. Subscutaneous Hematoma
2. Morel Lavalee lesion (type I-VI)
3. Sarcoma
4. Fat necrosis

Discussion

Morel Lavellee lesions are closed, degloving soft tissue injuries resulting in separation of skin/subcutaneous tissue from underlying fascia. Fluids such as blood and lymph can combine with other breakdown products and accumulate within this newly created space . Commonly located at the thigh, hip, and pelvic regions, theses lesions typically present acutely or a few days following initial injury. Symptoms include pain, ecchymosis, swelling, palpable fluctuant collection over area, and hypoesthesia.

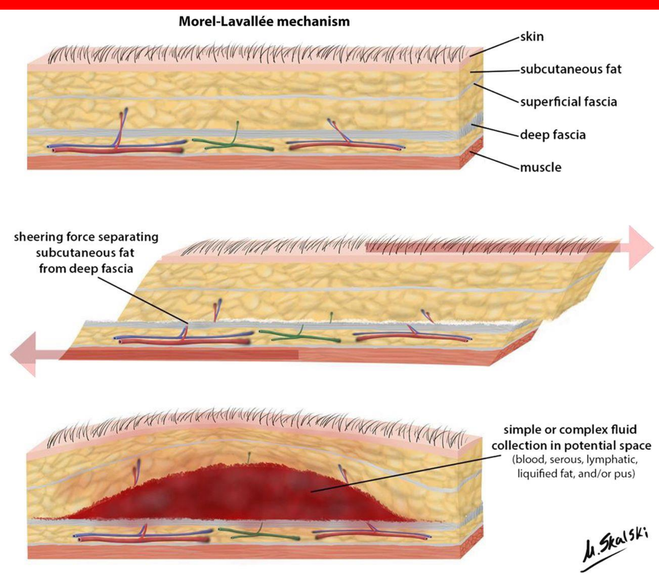
There are six known subtypes of lesions based on their shape, description, and imaging findings:

- **type I**: laminar-shaped and seroma-like with increased T2 signal
- **type II**: oval-shape that resembles a subacute trauma with increased T1 and T2 signal; thick capsule and variable enhancement
- **type III**: oval shaped resembling a chronic organizing hematoma; thick capsule and internal/peripheral enhancement
- **type IV**: linear; looks like a closed laceration with hypointense T1 signal and hyperintense T2 signal; no capsule and variable enhancement
- **type V**: pseudonodular with a round shape, variable T1 and T2 signal, a thin or thick capsule, internal/peripheral enhancement
- **type VI**: infected with variable T1 and T2 signal; variable sinus tract formation, a thick capsule, and internal/peripheral enhancement

Diagnosis is clinical but often requires further imaging via Ultrasound or MRI/ CT. Definitive management is determined by size, location, and age of the injury and ranges from ultrasound-guided percutaneous aspiration to open debridement and irrigation.

Outcome

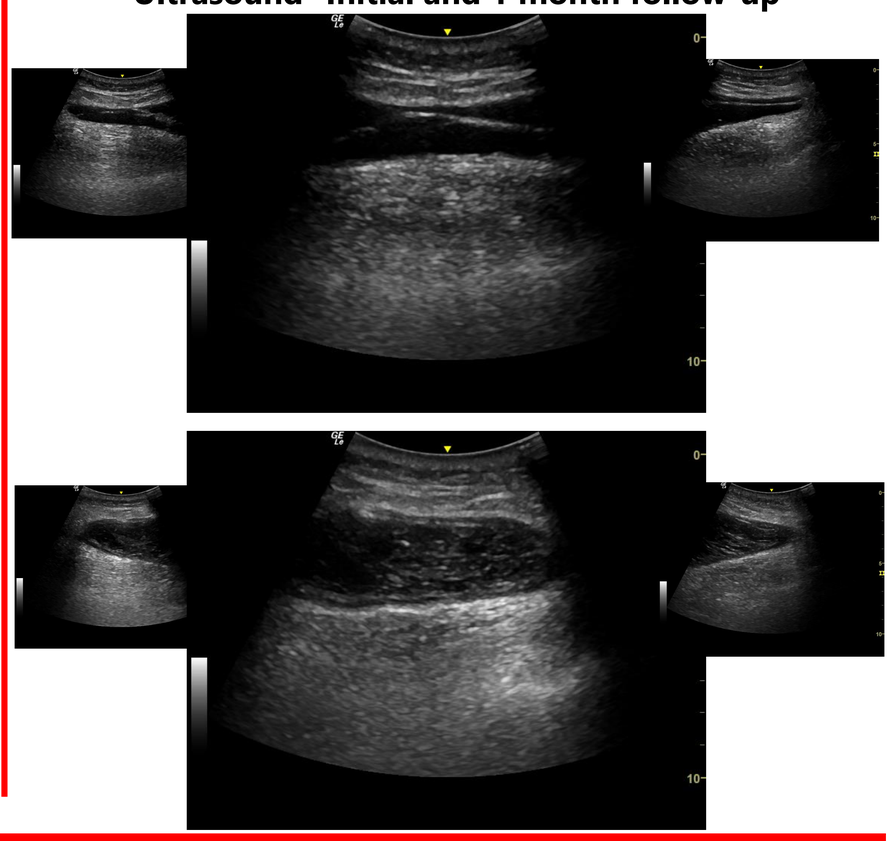
After multiple US-guided aspiration and an increase in complexity of lesion, patient was referred to plastic surgery who performed an excision with capsule removal. Patient recovered well after surgery without recurrence of lesion.



RELEVANT IMAGING

CT- initial and repeat

Ultrasound- Initial and 1 month follow-up



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