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Letter to Editor

Surgery Section

The Pencil that Hid Too Well: A Missed Gluteal Foreign Body

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Dear Editor,

Retained Foreign Bodies (FBs) in soft tissues often present diagnostic dilemmas, especially when they are radiolucent and the clinical history is unclear or underestimated. We report a rare and instructive case of a missed gluteal FB in a paediatric patient.

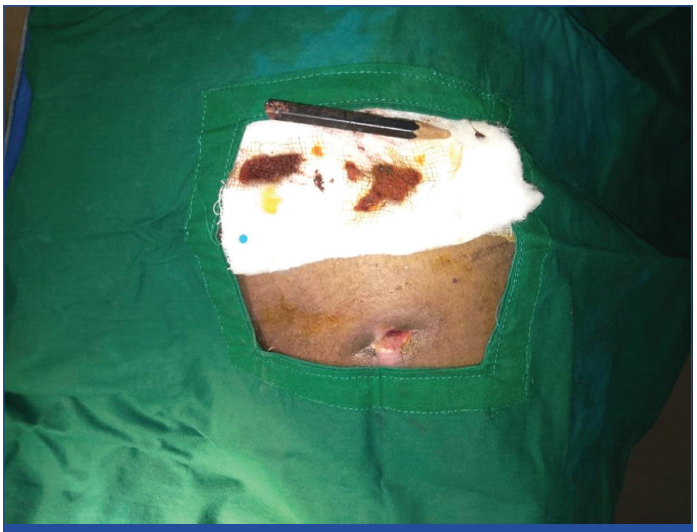
A 13-year-old male obese student, with a Body Mass Index (BMI) of 30 kg/m^2, was referred to a surgeon by a general practitioner, presenting with a history of a discharging sinus with watery discharge from the gluteal region for the past 15 days. The patient provided a history of trauma to the gluteal region occurring 15 days prior. He alleged that he had sat forcefully on a pencil held vertically on a school bench, which led to a penetrating injury in the gluteal region followed by an episode of dizziness immediately after the incident. Initially, he received treatment from a general practitioner; however, the condition did not improve, leading to a referral for further treatment at a higher center.

Upon presentation, the patient's vital signs were stable: pulse rate 82/min, blood pressure 120/80 mmHg, respiratory rate 20/min, and normal body temperature. Plain radiography (X-ray) of the gluteal region did not reveal any obvious FB, consistent with the radiolucent nature of wood or graphite materials. Ultrasonography of the gluteal region demonstrated a well-defined hyperechoic linear focus measuring approximately 6 mm in length, with posterior acoustic shadowing, embedded within a localised hypoechoic fluid collection in the subcutaneous tissue, suggestive of a possible retained FB. Due to financial constraints, Magnetic Resonance Imaging (MRI) could not be performed.

The patient underwent surgical exploration under spinal anaesthesia. The wound was explored circumferentially up to 5 cm, all lead particles were removed, necrotic tissue was debrided, and no FB was detected. The tract was left open with regular dressings, and the wound healed in 15 days.

One month later, the patient re-presented with a granuloma at the site. Under local anaesthesia, re-exploration revealed a 5 cm× 0.5 cm broken pencil lodged deep in the tissue, as shown in [Table/Fig-1]. The FB was removed uneventfully, and the wound subsequently healed by secondary intention.

This case emphasises the need for a high index of suspicion regarding suspected retained FBs, especially in children and when sharp organic materials are involved. Radiolucent FBs may be missed on plain radiography, and even ultrasonography has its limitations [1]. Missed FBs are fairly common, with a 38% incidence, particularly when the object is not visible on X-ray, such as wood or plastic [2]. They are more likely to be missed in children, obese patients, or situations where the injury appears minor. In paediatric patients, limited communication and vague histories complicate diagnosis, while in obese individuals, deeper tissue layers and poor imaging penetration increase the risk of missing FBs [2].



[Table/Fig-1]: Broken pencil (5 cm) recovered during re-exploration.

These cases often re-present with non-healing wounds or discharge. To avoid missing FBs, clinicians should obtain a detailed history, use appropriate imaging like ultrasound or MRI when needed, and consider repeat imaging if symptoms persist. In our case, although the FB was 5 cm long, it was missed on imaging due to its radiolucent composition, its deep location in soft tissue, and further obscured by the patient's obesity, as well as the lack of advanced imaging like MRI.

Clinicians must remain vigilant in cases of non-healing wounds, chronic discharges, or granulomas [3] following penetrating trauma [4,5]. Repeat surgical exploration should be considered when a wound fails to heal, chronic discharge or a sinus persists, or a granuloma forms at the site—especially when imaging results are inconclusive and clinical suspicion of a retained FB remains high.

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