



Case Report: Needle Penetrated in the Back Skin Presenting As a Conical Papule

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Dear Editor:

Generally, patients injured by penetration of foreign bodies, such as broken glass, pencil lead, or sewing needle, are aware of the trauma associated with the injury. However, in special circumstances, a foreign body can penetrate the skin without the patient's awareness. As a result, knowing the medical history of the patient becomes difficult which delays diagnosis and treatment and leads to serious complications. Here, we present a case where an accidental needle penetration in the back skin developed into a conical papule. We received the patient's con-

sent form about publishing all photographic materials.

A 24-year-old woman presented with symptoms of acute and severe localized back pain that began on the morning she was admitted to the emergency department. The patient had no history of medical or surgical treatment. However, a day before the visit, she had fallen out of bed in a drunken state and could not recall the details of the event. The patient was referred to a department of dermatology for incision and drainage under suspicion of a furuncle.

Physical examination revealed a solitary conical papule

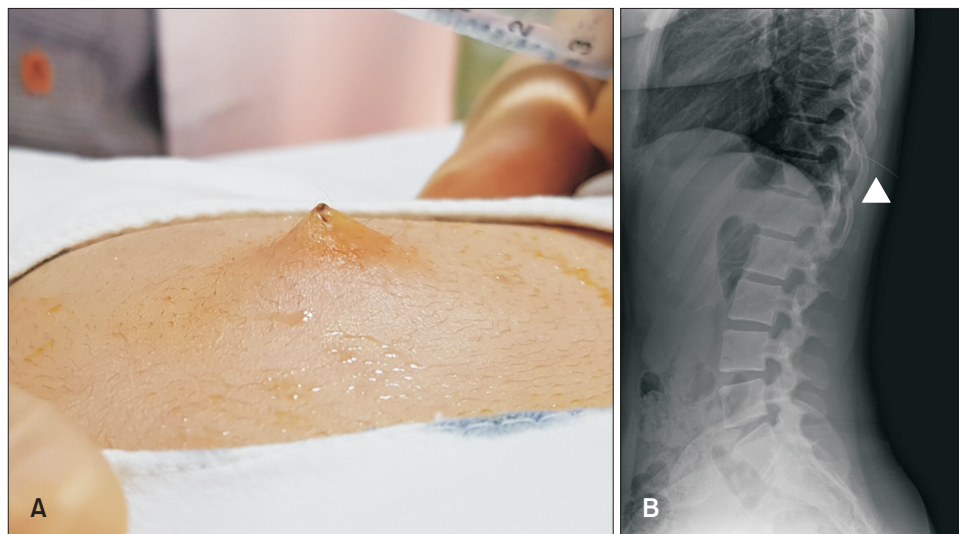


Fig. 1. (A) Solitary well-demarcated conical papule 1.0 cm in diameter with a brown colored central umbilication on the back. (B) Lateral radiograph of the thoracolumbar (T-L) spine showing a needle (arrow) which had penetrated approximately 5 cm into the muscle layer.

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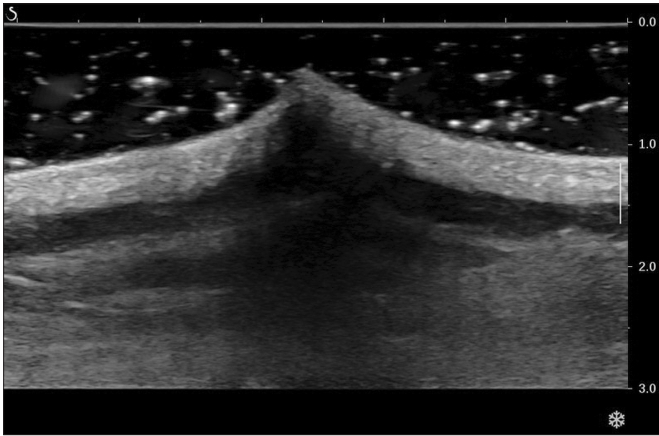


Fig. 2. Marked decreased echogenicity with mild surrounding soft tissue inflammatory change on the back.

with a central umbilication on the back (Fig. 1A). The lesion was painful and firm on palpation. The lesion showed a marked decreased echogenicity on ultrasonography (Fig. 2). A lateral plain radiography of the back showed that a sharp foreign body had penetrated into the muscles (Fig. 1B). We successfully removed the needle under local anesthesia and recommended tetanus vaccination to the patient.

Injury due to foreign body penetration can occur as a result of a simple accident with or without the patient's awareness. If the patient is aware of the foreign body, there is a high probability of an early elimination. However, diagnosis and treatment may be delayed if the patient is not aware of the foreign body. Because the needle insertion hole heals in a short time, it is easy to misdiagnose a foreign body penetration¹. Early identification and removal of the foreign body is necessary to prevent the development of complications such as local wound infection, cellulitis, abscess formation, or foreign-body granuloma formation. Therefore, physicians should accurately assess the clinical presentation of a foreign body in a skin wound. Wounds deeper than 5 mm, invisible wounds, and infected wounds are symptoms of foreign body penetration. Additionally, a wound that fails to heal or does not respond to antibiotic therapy could be possible symptoms of foreign body

penetration^{2,3}. Various imaging modalities are essential for detecting and localizing foreign bodies that are not adequately visible on physical examination, such as a needle. Multiple X-ray projections on a plain film should be performed first since it will help distinguish the shadow of the foreign body from the underlying bone. Moreover, ultrasonography can be used to estimate size of the foreign body, depth of penetration, and its relationship to the surrounding anatomical structures². In conclusion, physicians should consider foreign body penetration in patients who present with a bizarre-shaped tumorous lesion. In addition to the patient's medical history, they should utilize appropriate imaging modalities, such as X-ray and ultrasonography, for diagnosis.

CONFLICTS OF INTEREST

The authors have nothing to disclose.

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