

## Classic dermatological tools: Foreign body removal with punch biopsy



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### SURGICAL CHALLENGE

Sea urchins are a group of marine invertebrates with hollow spines that can cause traumatic injury. Acute manifestations of injury include localized pain, edema, and bleeding. Failure to remove spine fragments could lead to long-term complications and timely removal is warranted. Delayed reactions present as painful nodules with chronic, foreign body granulomatous inflammation secondary to spine retention (Fig 1, A).<sup>1</sup> These reactions might also occur with other foreign bodies like wood splinters and plant thorns. Fragments are fragile and break easily complicating removal with forceps, especially when patients present several weeks after the incident.

### SOLUTION

A 2-mm punch biopsy is useful to remove retained foreign bodies (Fig 1, B). Local anesthesia should be applied before the procedure. The punch should be directed to the center of the retained object, and direct pressure to it should be avoided. Gentle compression in the skin adjacent to the biopsy can help retrieve embedded fragments (Fig 1, C). This procedure helps avoid shattering and persistence of small splinters. When indicated, specimens might be sent for histopathologic and microbiologic examination to confirm the granulomatous reaction or infection, which are occasionally associated with embedded foreign bodies.<sup>2</sup> Radiography and dermoscopy can aid identification of the affected sites. Other surgical modalities include use of needles, fine tissue forceps, scarification, or open surgical intervention. Foreign materials that can be removed with this procedure include spines; thorns; and splinters of wood, glass, or metallic origin. Small-caliber punch biopsy represents a convenient foreign body removal technique (Fig 1, D).

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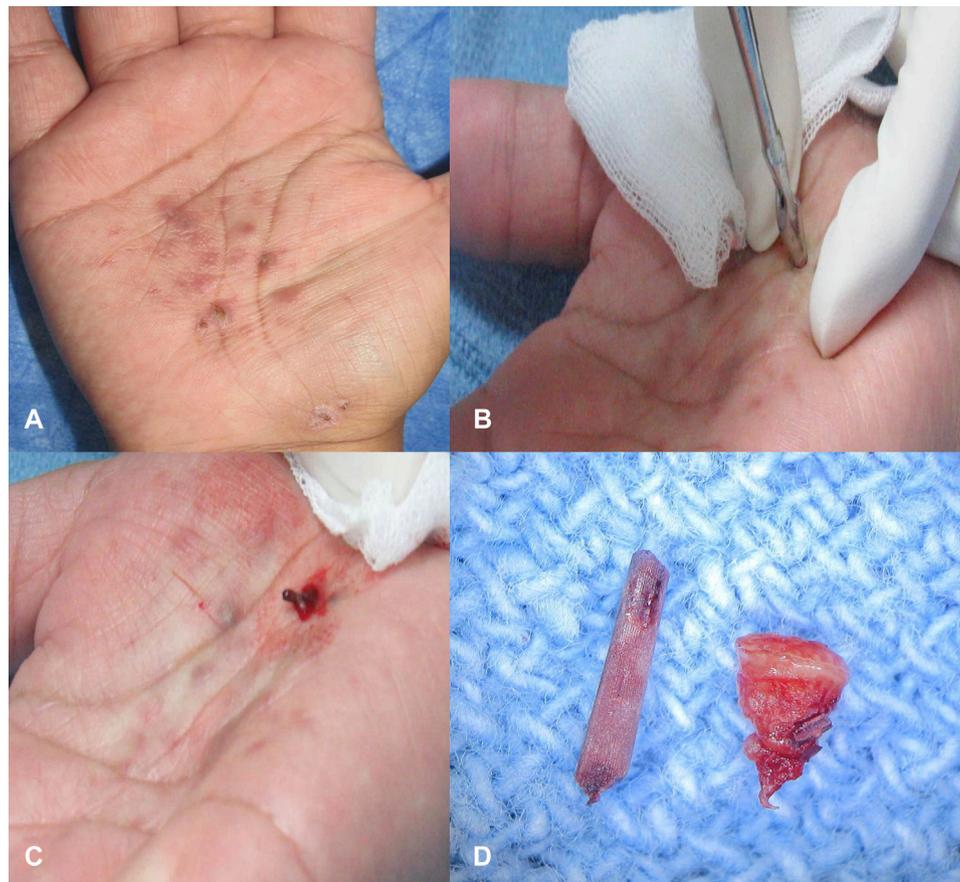
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**Fig 1.** **A**, Six-week old injury caused by sea urchin. **B**, Two-millimeter punch biopsy. **C**, Application of lateral pressure leads to protrusion of the spine. **D**, Skin biopsy specimen with spine fragments.

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