Finger High-Pressure Injection Injury Caused by Epoxy Paint Spray Gun

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A 45-year-old painter was admitted to our emergency department immediately after his finger sustained high-pressure injection injury caused by spray gun. A spray gun injects a small amount of epoxy paint, which becomes hardened when heated or when pressure is applied to it. Initial evaluation revealed no symptom, except a small nozzle puncture wound on the little finger (Fig. 1A).

Roentgenograms (Fig. 1B) helped determine the proximal spread of the injected radio-opaque material, which may trigger a more intense inflammatory response that results in significant ischemic injury and consequent amputation. Emergent wide surgical debridement and staged skin flap reconstruction were performed. Three months after injury, the patient complained of stiffness and hypoesthesia of the injured finger.

Fig. 1 (A) Clinical picture of the little finger suffering from high-pressure injection injury caused by epoxy paint spray gun. The small puncture wound in the immediate postinjection period may have gone unnoticed, leading to delay in instituting therapy. (B) Plain X-ray film of the finger showing dispersion of radio-opaque material in the soft tissues.
High-pressure injection injury caused by epoxy paint is a serious injury. Early recognition despite its innocuous initial presentation and prompt operation for debridement may reduce the amputation risk\(^{(1)}\).

**Reference**