

Clinical Image

## Industrial High-Pressure Gun Injection Injury of Hand

Bhaskar Ghoshal\* and Sujit K Bhattacharya

Glocal Hospital, Krishnanagore, West Bengal, India



**Figure 1:** Injection injury of the palm; Extensive fasciotomy done.  
**Figure 2:** Debridement of necrotic tissues complete.

### Abstract

A patient aged 23 years sustained accidental high-pressure injection injury of palm with automotive grease. Tamponade effect of the high-pressure injection (HPII) resulted in compartment syndrome. The patient underwent emergency exploration, extensive fasciotomy, irrigation and open tendon sheath release. Surgical intervention should be done as soon as possible.

**Keywords:** Injection injury; palm; compartment syndrome; fasciotomy; reconstruction

### Case Presentation

A patient aged 23 years sustained accidental high-pressure injection injury of palm with automatic grease (Figure 1). Tamponade effect of the high-pressure injection (HPII) resulted in compartment syndrome. The patient underwent emergency exploration, extensive fasciotomy, irrigation and open tendon sheath release. Extensive debridement of all the ischaemic tissues was done under cover of Brachial block. Repeated debridements facilitated plastic reconstruction. There was bone destruction of interphalangeal joints due to ischaemic necrosis, mechanical impact and “septic compartment syndrome”. The joints were stabilized by K-wire at the time of split skin grafting (Figure 2). The patient made speedy recovery and left the hospital on the 5<sup>th</sup> day. Follow-up after 1 week revealed complete healing of the site of injury with return of functions of the finger. Even though

\*Corresponding author: Bhaskar Ghoshal, Glocal Hospital, Krishnanagore, West Bengal, India, Tel: 9433054857; E-mail: drbhaskar\_ghoshal@rediffmail.com

Citation: Ghoshal B, Bhattacharya SK (2016) Industrial High-Pressure Gun Injection Injury of Hand. *Int J Clin Med Imaging* 3: 514. doi:10.4172/2376-0249.1000514

Copyright: © 2016 Ghoshal B, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

in the industry high pressure guns are used, injection injuries do occur. In general high pressure injury occurs in the non-dominated hand. Young male labourers are usually the victims. Initially, the injuries are only small punctures but with passage of time they tend to increase with aggravation of pain and tenderness resulting in a “septic compartment syndrome”. Only trained surgeons should venture for this type of high pressure injuries. The outcome and prognosis are variable depending upon the nature of the injected substance, associated infection and surgical skill to debride the wound, reconstruct the injured tendons, nerves, and blood vessels. Surgical intervention should be done as soon as possible.