

Surgical removal of radiolucent lodged bullet fragment 5 years after a shotgun injury

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Abstract

The foreign bodies are a frequent found after shotgun injuries. Every component of the shotgun shells can be lodged in the body including pellet, shell case, primer and wad. In this case report, we describe the removal of a radiolucent wad 5 years after shotgun injury.

If a foreign body is palpable and painful surgical exploration is recommended, even in the absence of radiopaque bodies at X-rays.

Keywords

bullet; lodged bullet; wadding; wad; shotgun; radiolucent foreign body

Description

In 2016, a 37-year old man presented to the emergency room of our hospital for persistent pain in the lower back region. The patient reported having participated 5-years earlier in a protests during Egypt's civil war, where he suffered a shot in left inguinal region, at close range, with a shotgun. After the shooting he was immediately rescue in a local hospital where bleeding was stopped.

At the palpation of the left gluteal muscle, where patient feel the pain, a tough mass of about 2cm in diameter was appreciated. For suspicion of foreign body, patient underwent X-Ray which found the presence of several radiopaque bodies suspects for shotgun pellet (Figure-1). Despite X-ray did not showed radiopaque bodies where the mass was noticeable, it was decided for a surgical exploration of the area in local anesthesia.

After incision of the skin and superficial fascia of the left gluteal muscle, a 1.5cm-diameter and 3cm-length cylindrical plastic has been found. The surrounding tissues were inflamed and fibrotic. Foreign body was removed and prophylactic Amoxicillin was administered. The postoperative course was regular and patient was discharged after few hours.

Removed foreign body has been recognized as a shotgun wad (Figure-2).

This component of the shotgun shells usually falls to the ground after the shooting; in this case, for the close range of the shot, it was penetrated through the tissues until the gluteal muscle.

Because of its plastic and radiolucent nature [1], is often difficult to locate a lodged wadding. Its

presence is usually predicted by the presence of a cluster of pellets on radiographs [2]. When suspected, the removal of wadding is necessary because it can promote a local inflammatory response and infection [2]. According to the guidelines the presence of a palpable mass suspected for bullet fragment is a clear indication for surgical exploration [3].

Clinical Images

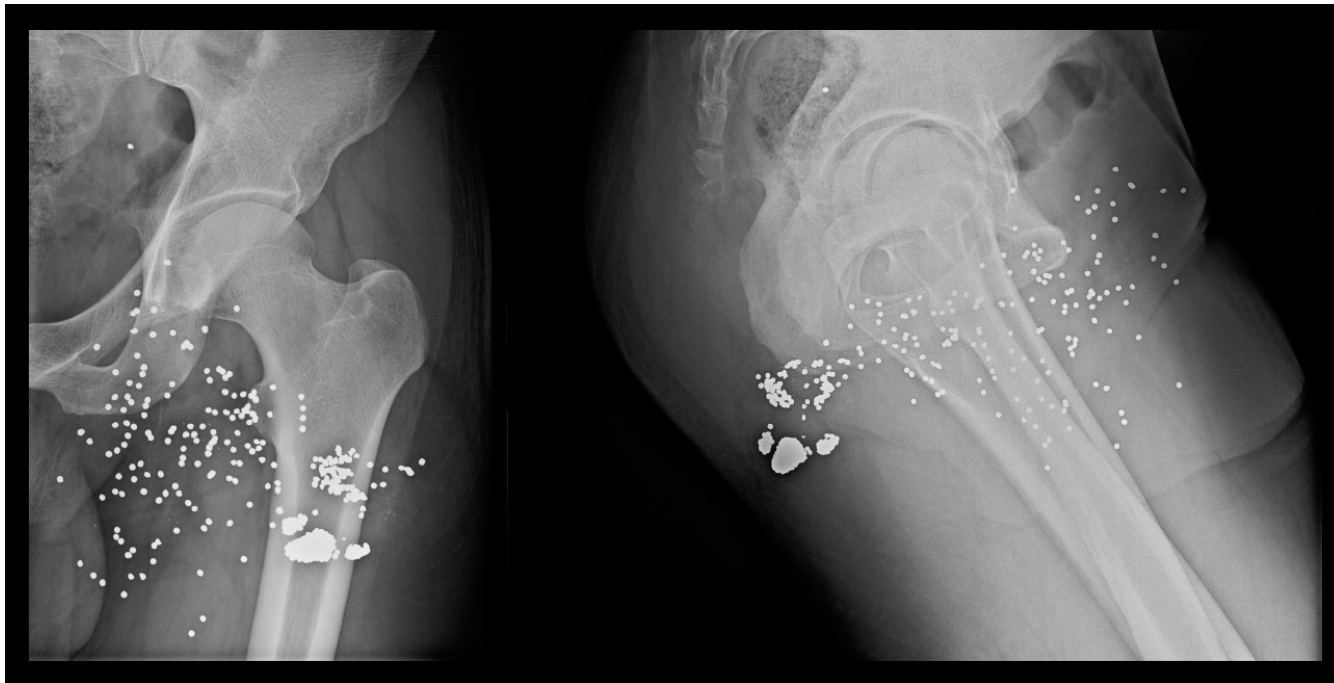


Figure 1: X-Ray showing the presence of several radiopaque bodies suspects for shotgun pellet. The plastic and radiolucent wad is not detectable.

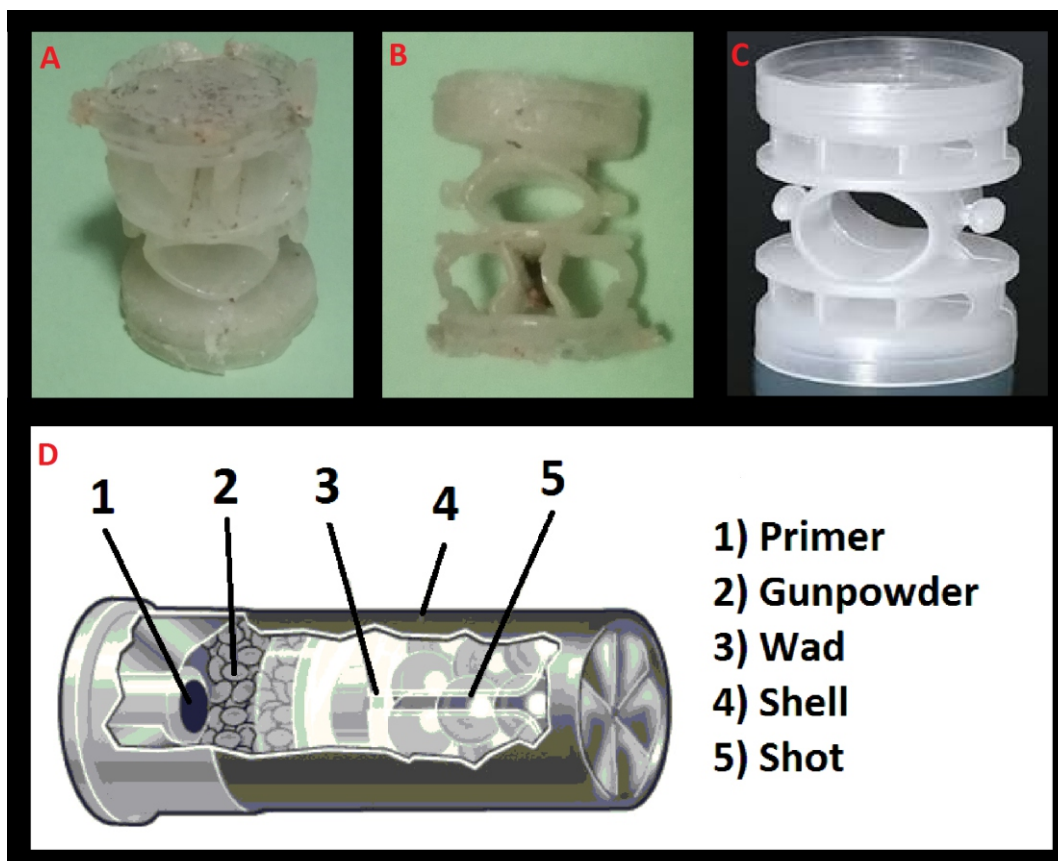


Figure 2: A-B) Removed wad; C) An original shotgun wad; D) Component of shotgun shells