

Tip of little finger of right hand with infected gangrene.

reasons. Stabs were mostly performed on only one finger, and in particular one hand, to avoid disturbing the paralysed arm. The patient was subjected to frequent stabs when blood glucose concentrations remained satisfactory. No device was used to limit penetration of the skin, which might have been too deep. He also had clinical evidence of small vessel disease affecting his arms.

Although pulp infection and gangrene are unusual complications of finger pricks to obtain capillary blood, they are still possible and may be prevented. Just as Young *et al* emphasised the importance of inspecting insulin injection sites regularly,⁵ we would suggest that similar caution be paid to sites used to obtain capillary blood. A proper technique must be adhered to, and in particular it would seem wise to use several fingers in rotation and a device to limit skin penetration. Repeated stabs should be kept to a minimum. The site chosen should be clean and warm, but alcohol swabs should not be used, as repeated use tends to toughen the skin. If impaired blood supply to the finger is suspected other sites such as earlobes should be considered seriously.

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Injuries from nail gun cartridges: a dangerous new game

In the past 20 years there have been several reports of injuries due to nail guns.¹⁻³ In all these cases the injury was caused by a nail penetrating the victim's body. There appear to be no reports, however, of injuries caused by shrapnel from exploding cartridges. In Manchester recently there has been an epidemic of admissions due to this type of shrapnel injury. In every case the history has been the same. Adolescent boys have found discarded, live cartridges from nail guns while playing, unsupervised, with friends. The "game" is to throw bricks at this ammunition and watch it explode.

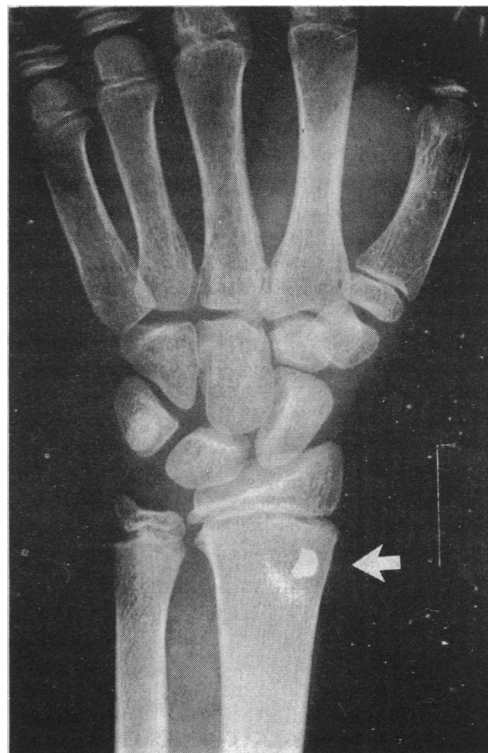
We report two case histories highlighting the type of injury sustained.

Case reports

A 14 year old boy was admitted with a wound in his left thenar eminence. A radiograph confirmed that there was a metal foreign body lodged in the soft tissues of his left hand but no skeletal damage. Initial treatment consisted of a sterile dressing, tetanus toxoid, and parenteral antibiotics. He was quickly taken to theatre, and the wound was explored under general anaesthesia with the use of an arm tourniquet. The shrapnel was removed, the wound was thoroughly

irrigated with saline and hydrogen peroxide, and minimal debridement of the edges of the wound was undertaken. There was no neurovascular damage, and the wound healed with no complications.

A 12 year old boy was admitted with a wound on the radial side of his right wrist. A metal foreign body was again confirmed to be lodged in the soft tissues with no bony damage. Initial treatment was as described above, and he was also taken to theatre. The shrapnel was embedded in the extensor carpi radialis tendon, which was partially lacerated (figure). The wound was irrigated copiously, and minimal debridement was undertaken as before. Again there were no complications.



Piece of shrapnel lodged in soft tissues.

Comment

The nail gun, when charged with the high explosive cartridge, is capable of firing a nail 10 cm into fully stressed concrete.⁴ Therefore, if this cartridge is detonated with a brick it will explode with a large amount of kinetic energy. This results in a ragged projectile with potentially high velocity.

Interviews with the victims and their parents suggested that these cartridges may be found lying around in large quantities on open ground. Throwing of bricks at these cartridges to watch them explode is becoming a common game among adolescent boys. One of the fathers said that he had notified the authorities about the potential danger of these cartridges. He alleged that the authorities admitted that they could not or would not safely dispose of this live ammunition as they claimed that this was not their responsibility. He was unable to find the responsible body.

The worrying aspect of this new game is that a more serious injury is bound to occur unless the dangers are recognised and these cartridges are disposed of safely. People using these guns legitimately must act responsibly and not leave live ammunition around.

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