

### Detection of aluminium ring pulls

EDITOR – I was interested in the article on hand held metal detector location of aluminium ring pulls by Ryan *et al.*<sup>1</sup> The use of such detectors may be extended to include other metal containing foreign bodies, whether or not they are expected to be radio-opaque. Presence of the foreign body is detected more sensitively by the metal detector than by plain radiographs, and localisation to the stomach or lower gastrointestinal tract permits conservative management without confirmatory radiographs.<sup>2</sup>

This has particular advantages for children, who tend to swallow a large variety of objects and in whom radiation should be avoided if possible. The cost of such a hand held metal detector would be quickly recouped once five or so radiographs had been avoided.

F DAVIES

*Department of Accident and Emergency Medicine  
Royal Liverpool University Hospital  
Prescot Street, Liverpool, UK*

- 1 Ryan J, Perez-Avila CA, *et al.* Using a metal detector to locate a swallowed ring pull. *J Accid Emerg Med* 1995;12:64–5.
- 2 Sacchetti A, Carracchio C, Lichenstein R. Hand-held metal detector identification of ingested foreign bodies. *Paediatr Emerg Care* 1994;10:204–7.

### Finding and removing small foreign bodies: a new technique for A&E

EDITOR – The removal of small calibre foreign bodies such as needles and splinters of wood

is a recurring difficulty in the accident and emergency (A&E) department. The time when foreign body removal should be at its easiest is when there is a fresh wound and tract. Removal should result in quicker wound healing and fewer complications. Even if the presence of a radio-opaque foreign body is known there is still the problem of finding and removing it.

I propose a simple method for detecting and removing small calibre foreign bodies which is suitable for use in the A&E department. It has not been described before. I have used it on 12 occasions and have succeeded in completely removing the foreign body on 11 of them. The only “failure” was in a patient with three fragments of glass in a finger tip, where two larger pieces were found and removed but the third, measuring about 1 mm in diameter, was not found. This piece was left in situ and caused no symptoms. Two typical examples of the use of this technique are presented.

#### TECHNIQUE

The technique simply involves identification of the tract by wiggling a piece of 1/0 or 2/0 nylon down through the entry point until it reaches the foreign body. The piece of nylon is held between the index finger and thumb. While rubbing it between the finger and thumb, push it into the wound so that it rotates and follows the tract made by the foreign body. It is usually easy to feel the nylon make contact with the foreign body. The nylon probe is left in the wound tract, which can then be opened by cutting from the entry point alongside the nylon until the foreign body is reached. It can then be easily removed.

I have only used the technique where the foreign body has been lying in the subcutaneous tissues, not in muscle.

#### Case 1

A 13 year old boy fell while playing football, causing a small skin puncture on the medial aspect of the knee. No foreign body was palpable and soft tissue x rays were normal, but the patient felt that there was something in the wound. Under local anaesthesia and using the method described an 8 mm thorn was identified and removed.

#### Case 2

A 38 year old electrician was hit on the left shin by a piece of fast moving metal from the chisel of a colleague, causing a small puncture wound. No foreign body was palpable but soft tissue x rays showed that a fragment of metal measuring 4 × 1 mm was lying between tibia and the skin. Using the method described the piece of metal was identified and removed.

The piece of nylon is as narrow as most needles, strong enough to be pushed without bending, but weak enough not to create its own tract. Although foreign body removal is easiest when the wound is fresh, this method has been used successfully up to two days later; removal of surface clot may reveal an easy to follow tract.

A LANNIGAN

*Accident and Emergency Department  
Middlesborough General Hospital  
Middlesborough, Cleveland, UK*

## Institution of Engineers of Ireland

### Impact Biomechanics, Injury & Traffic Safety

One week conference, 9–13 September 1996. Venue: Dublin

The aim of the programme is to bring the latest research on the biomechanics of impact injury to a wider technical and medical audience. It is only by achieving an understanding of how injury is caused that researchers and engineers can devise methods of mitigating injury severity. This one-week conference will bring to Ireland the world's leading experts in the areas of **traffic safety, injury, and trauma**.

The programme consists of three events: (1) A course on Impact Biomechanics and Injury; (2) A public “Manning” lecture, and (3) the hosting in Dublin by the Institute of Engineers of Ireland of the 1996 International IRCOBI Conference.

Further details from: Dr Christine Somers, Director of Education, Institution of Engineers of Ireland, 22 Clyde Road, Ballsbridge, Dublin 4, Ireland.

(Fax number +353 1 668 5508.)