Height, weight and secondary sexual characteristics were normal. Abdominal examination revealed a smooth mass arising from the pelvis 2 cms above the symphysis pubis. Rectal examination revealed a soft mass anteriorly. No change was noted following micturition.

Urinalysis and pregnancy tests were negative. Emergency ultrasound confirmed the clinical diagnosis of haematocolpos. The following day under general anaesthesia, a 2 mm thick imperforate hymen was incised allowing free flow of retained menstrual fluid.

Haematocolpos typically presents with the triad of abdominal pain, amenorrhoea and interference with micturition in the 14- to 15-year-old female! At puberty menstrual blood is retained in the vagina which becomes more and more distended with each succeeding period. A clear history may be obtained of regular lower abdominal pain for some months previously but irregular pain is more common. Anterior distension of the vagina may impinge on the urethra interfering with micturition. Per rectum, a large bulging mass may be palpated anteriorly in the vagina. Vulval inspection will reveal the imperforate hymen; however, this may be an extremely traumatic experience (Whitfield, 1984). Ultrasound examination, as in this case, is the investigation of choice.

Despite the rare occurrence, a precise history and clinical examination resulted in an accurate diagnosis of this once-in-a-lifetime cause of recurrent abdominal pain.

R. A. McIVOR
Accident and Emergency Department,
Royal Victoria Hospital,
Belfast

REFERENCES

- Williams E. A. (1978) The surgery of development and congenital disorder in gynaecology. In *Gynaecological Surgery. Clinics in obstetrics and gynaecology*, Lees E. H., Singer A. (eds) 5, Saunders, London, 505.
Whitfield C. P. (1984) *Dewhurst's Textbook of Obstetrics & Gynaecology for postgraduates*. Fourth Edition 11-12.

The boxers fracture: a simple and effective method of external splintage

Sir

Further to the previous letter by one of us (Maitra, *Archives of Emergency Medicine*, June 1989) we have now completed the mentioned retrospective study on angulated boxers fractures. Ours was a 2 observer study and thus decreased observer bias. The methods and results are briefly described. Forty patients with fifth metacarpal neck fractures having a volar angulation of 30° or more were included in the study. Each underwent manipulation under the ulnar nerve block at the wrist or inter metacarpal nerve block. Reduction was accomplished by the Jass manoeuvre. Further pressure was applied at the apex of the fracture site to achieve the best possible reduction. The reduced fracture was held in place with a zimmer splint and strapping with the MCPJ at

right angles and the IPJ's in full extension. A three point force was created by placing a small adhesive felt pad at the apex of the fracture site and moulding the splint over it. Check radiographs were then taken and, provided the reduction was satisfactory, the splint was reinforced with a strip of plaster cast and held in place with Colles type plaster (Fig. 1). Splint and cast were removed at 3 weeks. Angles were measured using lateral radiographs.

In our patients the initial angulation ranged from 30–55 (mean 34.5 ± 5.4) degrees. Post manipulation radiographs revealed that considerable reduction had been achieved. Our mean post manipulation angulation was 9.6 ± 7.37 degrees and final fracture angulation was 14.78 ± 10.46 . This shows that some redisplacement (mean 5.16 ± 8.74) had occurred. However, this still meant that our mean overall improvement was 19.72 ± 8.75 degrees, $P = < 0.001$. Functionality, all patients returned to normal grip strength at five weeks and were pleased with the appearance of their hands which showed no (80%) or minimal (20%) deformity of the knuckle. Pain relief was rapid (3 days) in splint and plaster.

Fig. 1 Splint and re-inforcing POP cast in position lateral view

It has been our experience (unpublished) that boxers fractures with a volar angulation of greater than 30° is associated with pain, deformity and a decrease in grip strength. This corresponds to Lowdon (1986), who showed that residual angulation was related to the severity of pain and Abdon (1984) who showed that a greater angulation caused more severe disability. We therefore find it difficult to accept the conclusion drawn by Porter *et al.*, (1988) that functional outcome is not significantly related to the degree of residual angulation, and that these fractures do not require treatment.

The recent trend of immediate mobilization (Arafa *et al.*, 1986; Ford *et al.*, 1989) of simple methods of treatment like volar slab (Porter *et al.*, 1988) we feel have been prompted because these fractures are difficult to reduce and maintain in external splintage (McKerrell *et al.*, 1987). Our study shows that these difficulties can be overcome and adequate external splintage achieved by the method described.

We conclude that fractures of the fifth metacarpal neck with a volar angulation of greater than 30° can be effectively reduced and maintained by this method of external splintage, which is easy to learn and can be performed by suitably experienced Accident and Emergency staff.

A. MAITRA & B. SEN

Accident and Emergency Department,
Royal Victoria Infirmary,
Newcastle upon Tyne, England

REFERENCES

- Abdon P., Muhlow A. & Stigsson L., (1984) Subcapital fractures of the fifth metacarpal bone *Archives of Orthopaedic Trauma Surgery* 103, 231-4.
- Arafa M., Hains J., Noble, J. (1986) Immediate mobilization of fractures of the fifth metacarpal neck. *Injury* 17, 277-8.
- Ford D. J., Ali M. S. & Steel W. M., (1989) Fractures of the fifth metacarpal neck: Is reduction or immobilisation? *Journal of Hand Surgery*, 14B, 165-7.
- Lowden I. M. R. (1986) Fractures of the metacarpal neck of the little finger. *Injury* 17, 189-92.
- McKerrell J., Vaughan Bowen J. & Geoffrey J., *et al* (1987) Boxers fractures—conservative or operative management. *Journal of Trauma* 27 486-90.
- Porter M. L., Hodgkinson J. P. & Hirst P. (1988) The Boxers fracture: a prospective study of functional recovery. *Archives of Emergency Medicine* 5, 212-5.

The use of catgut in the primary closure of scalp wounds in children

Sir

I am writing about the article in the September issue, Volume 6, page 216 regarding the use of catgut in the primary closure of scalp wounds in children. It surprised me to see that the use of absorbable sutures in the closure of scalp wounds is worthy of inclusion in your journal. We have been using absorbable sutures not only for children's scalp wounds but also for adults and not only on the scalps but elsewhere, where cosmesis is not a problem, for at least 3,000 lacerations a year for many years now. Indeed I was