

adverse reactions to a particular drug. Both the Swedish and UK regulatory agencies issued warnings, but their substance and emphasis differed, and this may have introduced some bias; neither regulatory authority, though, emphasised the problem of peripheral neuropathy, which appears to be the major difference in the profiles of adverse reactions to the drug.

We are grateful to Dr B E Wiholm of the National Board of Health and Welfare, Department of Drugs, Sweden, and Dr B H Ch Stricker of the Netherlands Centre for the Monitoring of Adverse Reactions to Drugs for their help and for supplying national data. We are also

grateful to the Committee on Safety of Medicines for permission to quote from the UK Adverse Reactions Register, and to Professor Abe Goldberg for his invaluable help and criticism.

## Reference

- Holmberg L, Boman G, Bottiger LE, Eriksson B, Spross R, Wessling A. Adverse reactions to nitrofurantoin. *Am J Med* 1980;69:733-8.

(Accepted 23 March 1982)

## SHORT REPORTS

### Unusual complication of perforated appendix

Peritonitis, local or generalised, is a common accompaniment of acute appendicitis, and residual septic foci may occur. The incidence of these has decreased over recent years, partly as a result of improved surgical techniques but largely owing to the use of prophylactic antimicrobial agents,<sup>1</sup> whether local<sup>2,3</sup> or systemic.<sup>4</sup>

We routinely use antibiotic peritoneal lavage (using a solution of 1 g tetracycline/1 0.9% saline) in cases of peritoneal sepsis, with good results.<sup>2,3</sup> Residual intraperitoneal sepsis may still occasionally occur in the form of pelvic, interloop, and subphrenic abscesses, in addition to local sepsis in relation to the appendix stump. We describe an abscess in the scrotum after appendectomy.

#### Case report

A 9-year-old boy was admitted with a two-day history of colicky central abdominal pain that localised in the right iliac fossa on the day of admission. He was toxic, and examination suggested acute appendicitis with peritonitis. At laparotomy, through a grid-iron incision, a perforated retrocaecal appendix was found with free pus in the peritoneal cavity. Culture of the pus subsequently yielded a profuse growth of *Escherichia coli*. After appendectomy thorough peritoneal lavage with tetracycline in saline was carried out, and the wound was closed without drainage. No other antibiotic was given.

After the operation he had a slight fever, which was attributed to a low-grade wound infection. The sutures were removed on the sixth postoperative day, and on the same day he developed quite suddenly a painful, hot, red swelling of the right side of his scrotum. Torsion of the right testis was provisionally diagnosed and exploration carried out. On opening the tunica vaginalis 5 ml of pus was released, but the testis and epididymis were normal. The wound was drained. His fever settled rapidly and he made an uneventful recovery. Culture of the pus proved sterile. Subsequent outpatient review at three months showed no evidence of further sepsis.

#### Comment

Co-existence of a perforated appendix and right-sided congenital hydrocoele or hernia must be common, yet we could find no report of residual sepsis in the scrotum. Our patient had no history or clinical finding suggestive of a hydrocoele or hernia, but presumably a connection between the peritoneal cavity and the tunica vaginalis was present. A patent processus vaginalis was not found at the second operation, but obliteration of the channel after the sepsis is probable. Spread of the sepsis from the abdominal wound into the inguinal canal seems unlikely, as the sepsis in the scrotum was confined within the tunica vaginalis.

Acute epididymo-orchitis after prostatic surgery is well recognised, infection reaching the testis via the vas deferens. It might be postulated that retroperitoneal infection from a retrocaecal appendix could track alongside the vas, but in this case there was no evidence of infection of the epididymis or testicle.

Opponents of intraoperative peritoneal lavage believe that it may spread sepsis within the peritoneal cavity. We have been unable to find any evidence for this view, but it is conceivable that the lavage encouraged the passage of organisms down a patent processus. It is unlikely that the use of systemic antibiotics would have prevented this

occurrence. Recent (unpublished) observations have shown that tetracycline lavage leads to a therapeutic serum tetracycline concentration within an hour, and the pus trapped in the scrotum was shown to be sterile. It is therefore difficult to know how this complication might be avoided, even when a congenital hernia or hydrocoele is suspected before operation.

We thank Mr S S Miller, consultant surgeon at the Royal Aberdeen Children's Hospital, for permission to report on his patient.

- Campbell WB. Prophylaxis of infection after appendectomy: a survey of current surgical practice. *Br Med J* 1980;281:1597-600.
- Stewart DJ, Matheson NA. Peritoneal lavage in appendicular peritonitis. *Br J Surg* 1978;65:54-6.
- Stewart DJ. Antibiotic peritoneal lavage in the treatment of peritonitis. ChM thesis, University of Aberdeen, 1978.
- Pinto DJ, Sanderson PJ. Rational use of antibiotic therapy after appendectomy. *Br Med J* 1980;280:275-7.

(Accepted 16 February 1982)

#### Royal Aberdeen Children's Hospital, Aberdeen AB9 2ZD

W S MCKERROW, FRCS, surgical registrar

#### Aberdeen Royal Infirmary, Aberdeen AB9 2ZG

H J THOMSON, FRCS, surgical registrar (now at Royal Northern Infirmary, Inverness)

## Hypophosphataemic vitamin-D resistant rickets may need phosphate supplements

The commonest form of vitamin-D resistant rickets is associated with a renal tubular defect producing hyperphosphaturia and hypophosphataemia, and has been treated with vitamin D up to 100 000 units daily together with phosphate supplements.<sup>1</sup> Recent reports<sup>2,3</sup> suggest that phosphate supplements are not required when treatment is with 1 $\alpha$ -hydroxy vitamin D<sub>3</sub> (1 $\alpha$ -OHD<sub>3</sub>), but the results show that serum phosphate concentrations remained subnormal. We describe a child in whom rickets was not controlled with 1 $\alpha$ -hydroxy vitamin D<sub>3</sub> until oral phosphate supplements were given.

#### Case report

A girl delivered at full term after breech presentation weighed 3150 g and was bottle fed. Welfare clinic multivitamin drops were given daily for one year. Her parents, brother, and sister were healthy and there was no family history of bone disease. She was very active, had a good appetite, and the milestones of development were normal. She walked at 13 months but her gait was waddling and her legs became increasingly bowed. When she presented at 23 months her height was -3 SD and weight -2 SD from the mean (76 cm and 9.6 kg). Radiographs showed evidence of severe rickets affecting wrists and knees. Results of investigations were: serum calcium concentration 2.5 mmol/l (10.1 mg/100 ml); phosphate concentration 0.7 mmol/l (2.1 mg/100 ml); alkaline phosphatase activity grossly raised;