Case Report

An Unusual Complication of Herniography

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INTRODUCTION

Herniography is performed to diagnose hernias where there is clinical suspicion, but negative examination. Complications are uncommon and usually mild, and it is generally considered to be a safe procedure. We present two cases of scrotal swelling as an unusual complication of herniography. The complications of herniography are discussed, and recommendations are made to reduce the occurrence of the reported complication.

CASE REPORT

Case 1

A 34-year-old man presented with left groin pain and a history suggestive of an inguinal hernia, but not confirmed on clinical examination. As the clinical index of suspicion was high, he was referred for outpatient herniography. A midline puncture site was used, and 50 ml Ultravist 300 injected with a 20 G spinal needle. A large left-sided indirect inguinal hernia was demonstrated, with a narrow neck extending into the scrotal sac (Fig. 1). There were no problems reported after the procedure, and the patient was sent home.

Three hours later, he was admitted to a surgical ward, complaining of left scrotal swelling. Examination revealed a fluid collection around the testis. The symptoms improved when the patient was instructed to lie flat with his legs elevated, and he was discharged home a few hours later. No further problems were subsequently reported.

Case 2

A 64-year-old man presented with a history of right groin pain and an equivocal examination. He was referred for outpatient herniography. A midline puncture site was used, and 50 ml Ultravist 300 injected with a 20 G spinal needle. A large right-sided indirect inguinal hernia was demonstrated, with a narrow neck extending into the scrotum (Fig. 2). There were no complications after the procedure, and the patient was allowed home.

Two hours later, he returned to the radiology department complaining of a swollen scrotum. An ultrasound was performed which demonstrated an indirect hernia on the right, and oedema of the tunica vaginalis on the right. As the scrotal swelling had occurred a few hours after the herniogram, it was assumed that it was due to contrast medium in the hernial sac. The patient was reassured and discharged home.

DISCUSSION

Herniography has an established role in the management of sub-clinical hernias [1–3]. Several papers have discussed the safety of this investigation [1–4], and most report no complications occurring during or immediately after the procedure. Minor complications include abdominal pain at the time of the procedure, puncture of the large bowel, small bowel or stomach, vasovagal attack, abdominal wall haematoma, and a reaction to the contrast medium [1,5–7]. However, there is a 5% reported incidence of more severe adverse effects requiring hospital admission, including bowel perforation, injection into inferior epigastric vessels or inferior
vena cava (IVC), bowel wall haematoma and abdominal wall cellulitis [3,7–9]. Peritonitis has also been reported, including one case in which laparotomy was performed and the patient was found to have an indurated peritoneum, thought to be due to a chemical peritonitis occurring post-contrast medium injection into the peritoneum [1].

There are only two scrotal complications mentioned in the literature: one patient reported an increase in sensitivity and a feeling of a swollen scrotum for a few hours after his herniogram [1], and one patient developed a tense scrotal swelling after herniography, which was confirmed on ultrasound to be an acute hydrocele, and which resolved after bed rest and conservative management [5].

Hernias in younger patients are more usually indirect, due to a persistent patent processus vaginalis, while those in older patients tend to be direct hernias, due to a defect in the inguinal ligament. Both of our patients had indirect inguinal hernias with a narrow neck extending into the scrotal sac, proven on herniography, and both later complained of scrotal swelling occurring on the side of the hernia. We believe that the contrast medium passed gradually down into the scrotal sac, causing scrotal swelling and pain. Fluid in the scrotum was confirmed on clinical examination or ultrasound, and the symptoms gradually resolved. This was presumably due to re-absorption of the contrast medium through the peritoneum, which may take longer than normal due to the reduced area of peritoneum available for absorption within the hernial sac compared with the volume of contrast medium needing to be absorbed.

We suggest that scrotal swelling is a recognized complication occurring after herniography in patients with a confirmed hernia. We therefore recommend that all patients with a hernia demonstrated at herniography, particularly an indirect hernia with a narrow neck, be warned that they may experience scrotal discomfort and swelling after the procedure. They should be advised that if this occurs they should rest with the legs elevated for a few hours to improve the resorption of contrast medium.

REFERENCES