an invasive diagnostic procedure. The patient is currently undergoing radiation therapy and chemotherapy is planned.

Final diagnosis

Glioblastoma multiforme.

Keywords: glioblastoma multiforme; influenza vaccine

- 1 Swamy HS, Shankar SK, Chandra PS, *et al.* Neurological complications due to beta-propiolactone (BPL)-inactivated antirabies vaccination. *J Neurol Sci* 1984;63:111–28.
- 2 Nichol KL, Margolis KL, Lind A, *et al.* Side effects associated with influenza vaccination in healthy working adults: A randomized, placebo-controlled trial. *Arch Intern Med* 1996;156:1546–50.

- 3 Govaert TM, Dinant GJ, Aretz K, *et al.* Adverse reactions to influenza vaccine in elderly people: randomized double blind controlled trial. *BMJ* 1993;307:1213–4.

Acute testicular pain

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A 15-year-old boy presented with history of acute pain in the left side of the scrotum radiating to the lower abdomen. He had no history of trauma, urinary symptoms or vomiting. On examination he was afebrile and the left side of the scrotum was red, swollen and tender. There was no tenderness on the right testis or epididymis. There was mild left iliac fossa tenderness with no rebound tenderness or guarding. His bowel sounds were normal.

Questions

- 1 What is the differential diagnosis?
- 2 How would you manage the patient?

Answers

QUESTION 1

The differential diagnosis includes torsion of testis, torsion of a testicular appendage (hydatid of Morgagni), epididymo-orchitis, and strangulated inguinal hernia.

QUESTION 2

The patient should be given analgesia and worked up for a urgent scrotal exploration. At scrotal exploration, the testis and epididymis were normal. At the apex of the tunica vaginalis sac, a glimpse of what appeared to be infarcted bowel was seen. The inguinal canal was explored and a strangulated Meckel's diverticulum was found. This was resected via the inguinal incision and an end-to-end anastomosis was performed. He made an uneventful recovery.

Discussion

Acute scrotal pain is a common paediatric surgical emergency. Torsion of the testis or its appendage constitutes 70–80% of such cases. Although ultrasound with colour flow Doppler studies has been shown to be highly specific,¹ scrotal exploration remains the gold standard in managing these patients. The presentation of a strangulated Littre's hernia as an acute scrotal swelling has not been reported in the literature. Nour *et al*, in a retrospective study of 143 patients with acute scrotal swelling, did not find one case of strangulated inguinal hernia.²

Meckel's diverticulum in a hernia sac constitutes a Littre's hernia. This is a rare condition and in Frankau's series of 1487 strangulated hernias constituted only 0.3%.³ In 1700, Alexis Littre, a French surgeon described two cases of strangulated femoral hernia with ileal diverticulum. This was, however, not known as Meckel's diverticulum until Johann Friedrich

Learning points

- testicular torsion is the commonest cause of acute scrotal pain
- surgical exploration is the gold standard in management
- when exploration reveals normal testis and epididymis, think of uncommon conditions like strangulated inguinal hernia

Meckel described it in 1809. Strangulation of a Meckel's diverticulum in a hernia may occur in 10% of patients with the diverticulum.⁴ Littre's hernia are 50% inguinal, 20% femoral, 20% umbilical and 10% miscellaneous hernias.⁵ It is more common in women.

The presentation in our case is unusual in that there was no inguinal swelling to account for the hernia. The scrotum was swollen and red due to the inflammatory response secondary to the infarcted bowel in the inguinal canal and not due to the contents being in the scrotum. There were no features of intestinal obstruction. This is not unusual as the small bowel lumen is not compromised in a strangulated Meckel's diverticulum.

Testicular torsion is the most common cause of acute scrotal pain and is the most important diagnosis to be excluded, as any delay will cause infarction of the testis. However, if the testis and epididymis are normal at exploration, less frequent conditions such as a strangulated inguinal hernia should be suspected.

Final diagnosis

Strangulated Littre's hernia.

Keywords: Littre's hernia

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2 Nour S, MacKinnon AE. Acute scrotal swelling in children. *J R Coll Surg Edinburgh* 1991;36:392–4.

3 Frankau C. Strangulated hernia. A review of 1487 cases. *Br J Surg* 1931;19:176.

4 Trupo FJ, Aburahma A. Meckel's diverticulum in a femoral hernia: a Littre's hernia. *South Med J* 1987;80:655–6.

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