

Gas in the right hemiscrotum? Amyand's hernia in a neonate

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DESCRIPTION

A 10-day-old boy, born at 36 weeks' gestation, was brought to our emergency department (ED) with irritability. He was able to suck as usual, but his temperature was 37.9°C and his right inguinal region was slightly erythematous. Laboratory data showed leucocytosis with a total leucocyte count of $23 \times 10^9/L$ (neutrophils 72.5%), but a low C reactive protein ($<0.10 \text{ mg/dL}$). Urinalysis showed no pyuria and no organisms. Abdominal X-ray was unremarkable. Initial inguinal ultrasonography by a paediatric surgeon revealed no suggestion of testicular torsion or incarcerated hernia. The neonate was discharged home with a tentative diagnosis of acute epididymitis.

Six hours after discharge, he returned to ED with high fever of 38.7°C and extreme redness of the



Figure 1 Physical examination revealed erythema of the scrotum on the day of admission.

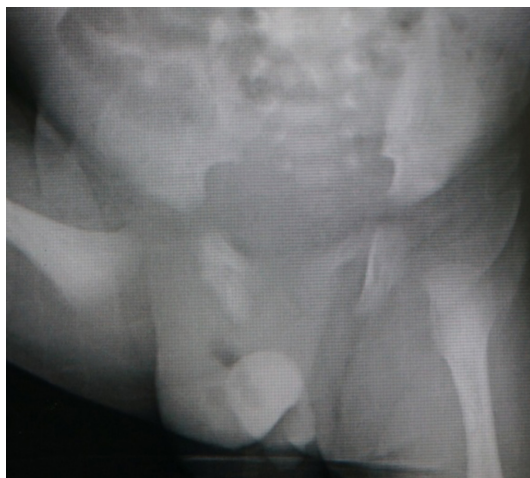


Figure 2 Abdominal X-ray demonstrated gas in the right hemiscrotum.

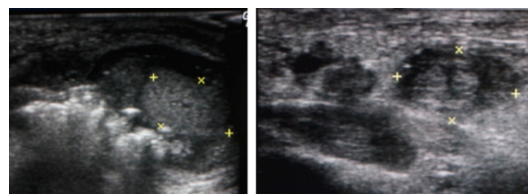


Figure 3 Ultrasonographic findings showed a bright cord in the right hemiscrotum.

scrotum (figure 1). Repeat abdominal X-ray demonstrated gas in the right hemiscrotum (figure 2) and abdominal sonography revealed what appeared to be a bright cord in the right hemiscrotum (figure 3), which was eventually an appendix in the intraoperative findings. As the indication of surgery was incarcerated hernia, he underwent an operation.

Intraoperative findings revealed a right external inguinal hernia with the vermiform appendix lying in the inguinal hernia sac. The base of the appendix was traced through the deep inguinal ring with necrotic-like change (figure 4) and he underwent an appendectomy. Histological examination showed the appendix was inflamed. He was diagnosed with Amyand's hernia with an incarcerated hernia and an inflamed appendix.¹ His hospital course was excellent and he was discharged home 3 days after the surgery.

Amyand's hernia is extremely rare, occurring in only 0.07%–0.13% of cases of all forms of acute appendicitis.² It is especially rare in the neonatal period, as in our case. Diagnosis of Amyand's hernia can be difficult due to its rarity, and the presentation is usually similar to that of any incarcerated inguinal hernia, with tenderness, erythema and irritability.² Ileus symptoms typically do not occur, if not incarcerated. When appendicitis occurs, symptoms can be similar to testicular inflammation or

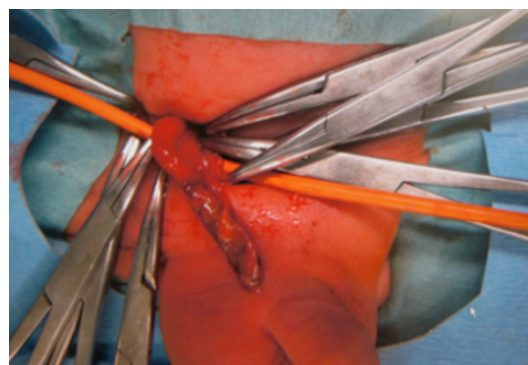


Figure 4 Inflamed appendix in Amyand's hernia.



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Learning points

- ▶ Amyand's hernia is an inguinal hernia in which the hernia sac contains the appendix. It is extremely rare in children, especially in neonates.
- ▶ In infants less than 1 year of age who present with recurrent painful swelling of the inguinal region, we should think of Amyand's hernia.
- ▶ We should think of Amyand's hernia when seeing gas in the hemiscrotum on abdominal X-ray.

torsion, thus the preoperative diagnosis can be very difficult. Physical findings, ultrasonographic findings and X-ray results may be useful diagnostic tools before surgery, as the images in this case show. Furthermore, in very rare cases, it is also necessary to know the possibility of Amyand's hernia occurring in the left scrotum.³

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