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An unusual presentation of perforated appendicitis

Adnan A. Mohammed, *ABGS, FICS,*
Ramiz B. Abbu, *FRCS, FICS.*

The most common intra peritoneal viscus to be perforated in the pediatric age group is the appendix. Appendicitis is very rare in infants and toddlers; its protean manifestations in early childhood are puzzling to the clinician and a major factor in delaying the diagnosis. This can lead to an increased incidence of advanced appendicitis,[1] and offers a favorable chance for the development of this exceptional and rare complication of perforated appendicitis. Pus like any other intra peritoneal fluid; for example, blood, ascites, meconium, and can be collected in any peritoneal recess, but for a hernial sac or a patent processus vaginalis to be full with pus after perforated appendicitis is extremely rare.

Herein, a 3-year old male child was referred to our department from a district hospital with a history of painful inguinal lump of one day duration associated with vomiting and abdominal distension. The family gave a history of abdominal pain, vomiting, diarrhea and fever 2 days before treated as gastroenteritis. On examination the patient looked ill, pale, with high fever (39°C). There was generalized abdominal tenderness, guarding, and bowel sounds were sluggish, associated with a tender, firm, irreducible swelling at the left inguinal region with a red overlying skin, there was no history of a hernia and both testes were palpable in the scrotum. He had a high leukocytes count (18,000/mcl), multiple fluid levels on plain x-ray of the abdomen, no gas shadow was seen at the left groin. The patient was diagnosed to have a strangulated left inguinal hernia, per-operatively the left sac was found full of pus with severe inflammation of the surrounding tissues. After evacuation of the pus and excision of the sac, the abdomen was opened; there was a perforated appendix with generalized peritonitis. Postoperatively the child did well, and was discharged home after 10 days.

Nothing can replace a careful clinical evaluation. With improved attention to the early prodromal symptoms and astute diagnosis by an experienced surgeon we can decrease the incidence of undetected appendicitis and its complications.[2] The presence of a painful irreducible groin swelling makes it difficult for the surgeon to entertain any other diagnosis although the presence of an abdominal pain preceding the swelling may give a clue to the correct diagnosis.[3] There are 2 phases of this condition: an early phase due to the distension of a hernia sac or a patent processus vaginalis with pus as in our case, and a delayed phase where the contamination of the sac occurs yet the clinical features appear after 3-9 days when a scrotal abscess develops.[3-5] A peritoneal wash may encourage the passage of micro-organisms down a patent processus vaginalis. From the natural history of abdominal hernias, we can expect that such a complication is more associated with an inguinal hernia, more among male patients and more on the right side.

In conclusion, an early diagnosis and operative intervention in the pediatric age group is indispensable, increased level of competence of the doctors on duty can lower the number of missed appendicitis. Despite the above rare pathology, we have to think of in cases of perforated appendix with history of a hernia or hydrocele.

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From the Medical Faculty (Mohammed), Benghazi, Libya and Al-Ain Hospital (Abbu), United Arab Emirates. Address correspondence and reprint requests to Dr. Adnan A. Mohammed, PO Box 9350, Benghazi, Libya. Tel. +218 (61) 2236114. Fax. +218 (61) 86964. E-mail: adnanmoh@yahoo.com

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