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A rare association: acute pancreatitis caused by the influenzavirus A with secondary appendicitis in a six-year-old girl

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Dear Editor,

We report the case of a six-year-old girl who presented to the Pediatric Emergency Department due to abdominal pain with bilious vomits and fever of 40 °C for 48 hours. The physical examination showed a poor general condition and generalized abdominal pain. The cardiorespiratory examination was unremarkable except for mild cough and no other abnormalities were found.

Blood tests showed increased levels of C-reactive protein (CRP) (17.8 mg/l), amylase (1,752 U/l) and lipase (2,624 U/l), which raised a high suspicion of acute pancreatitis (AP). An abdominal ultrasound (AUS) was performed, which showed clear signs of AP (Fig. 1A). The patient was admitted to the hospital with analgesia and intravenous fluid therapy and a nasopharyngeal aspirate was positive for the influenzavirus A (IVA).

After 24 hours, the abdominal examination revealed Blumberg's sign and new blood tests showed further increased levels of CRP (115.4 mg/l). These findings led to a suspicion of acute appendicitis, which was confirmed by a new AUS (Fig. 1B). Following an emergency appendectomy, her condition improved and she was discharged six days later and has remained asymptomatic during the follow-up.

Discussion

Acute pancreatitis represents the most frequent pancreatic disorder in children and it affects 13.2/100,000 individuals per year (1). Many causal agents have been implicated in AP, including trauma, metabolic and infectious diseases (1,2). However, IVA is an exceptional etiology (3). Abdominal ultrasound is the imaging technique of choice when AP is suspected in children (4).

The most common findings include increased size and decreased echogenicity of the pancreas, although these may be normal features in some infants. Whereas more specific features include poorly defined pancreatic borders, peripancreatic fluid and dilation of the pancreatic duct (1,4). Notably, the examiner needs to acknowledge the normal variability of the pancreas to avoid false positive findings (5), and potential reactive entities in other organs (e.g., appendicitis) warrant careful attention during the examination.

References

1. Restrepo R, Hagerott HE, Kulkarni S, et al. Acute pancreatitis in pediatric patients: demographics, etiology, and diagnostic imaging. Am J Roentgenol 2016;206(3):632-44. DOI: 10.2214/AJR.14.14223

2. Serafino M, Vitale V, Severino R, et al. Pediatric ultrasonography of the pancreas: normal and abnormal findings. J Ultrasound 2018;25:8.

3. Rawla P, Bandaru SS, Vellipuram AR. Review of infectious etiology of acute pancreatitis. Gastroenterol Res 2017;10(3):153-8. DOI: 10.14740/gr858w

4. Chao HC, Lin SJ, Kong MS, et al. Sonographic evaluation of the pancreatic duct in normal children and children with pancreatitis. J Ultrasound Med 2000;19(11):757-63. DOI: 10.7863/jum.2000.19.11.757

5. Di Serafino M, Vitale V, Severino R, et al. Pediatric ultrasonography of the pancreas: normal and abnormal findings. J Ultrasound 2018;25:8. E-pub ahead of print.

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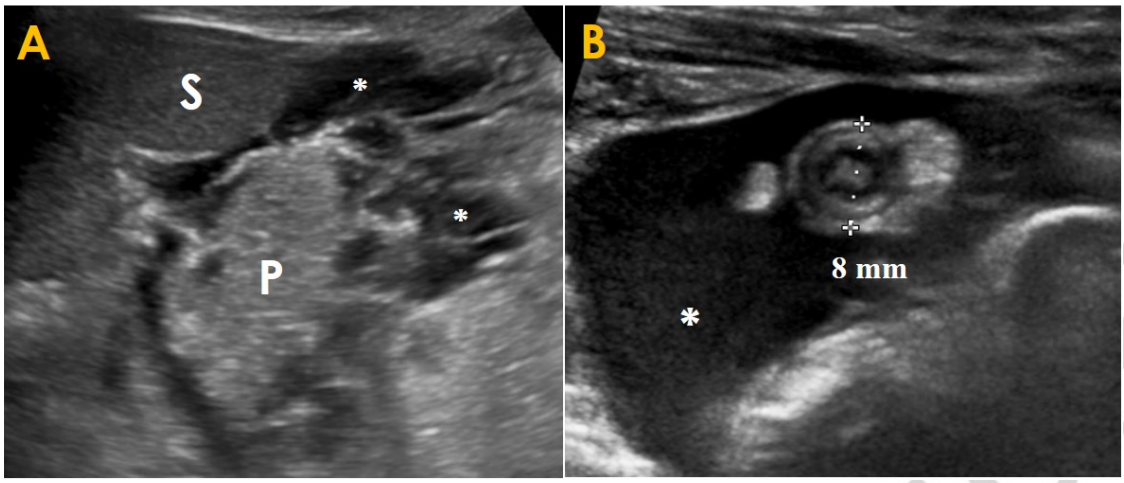

Fig. 1. A. Abdominal ultrasound performed on admission. Enlargement, hypoechogenicity and diffuse margins of the tail of the pancreas, with associated peripancreatic fluid (asterisk). B. Abdominal ultrasound performed 24 hours later. The transverse diameter of the vermiform appendix is increased and there is abundant periappendicular free fluid (asterisk). L: liver; S: spleen; P: pancreas.