

A Pediatric Right Lower Quadrant Pain Case

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SECTION 2 – ANSWER

CASE

A 4-year-old male patient was admitted to the emergency department with right lower quadrant pain. On physical examination, there was tenderness and voluntary defense in the right lower quadrant. Rebound tenderness was not observed. Initially, the patient was sent for sonographic examination [Figure 1] and then to the abdominal radiography [Figure 2]. Images of the mentioned examinations are shown.

Interpretation

A 4-year-old male patient was admitted to the emergency department with right lower quadrant pain that started yesterday evening. The anamnesis was nonspecific. On physical examination, there was tenderness and voluntary defense in the right lower quadrant, but rebound tenderness was not observed. The patient was sent to the radiology department for ultrasonographic examination with a clinical diagnosis of acute appendicitis. Ultrasonography of the right lower quadrant revealed [Figure 1] a thin linear echogenicity causing reverberation artifact inside the bowel lumen. It was impressed as a metallic foreign body that probably a pin. The finding on ultrasound was confirmed with plain radiography [Figure 2] which showed a metallic shadow (pin) in the right side pelvic region.

DISCUSSION

Right lower quadrant pain is one of the most common causes of emergency surgery in the pediatric population. The first surgical pathology that is considered in the etiology and should be ruled out is acute appendicitis.^[1] Differential diagnosis should include; mesenteric adenitis, gastroenteritis, invagination, Meckel's diverticulum, urinary system infections, urolithiasis,

malignancies, and female gender-specific pathologies such as pelvic inflammatory disease, ovarian cyst, ovarian torsion. In addition, although it is less common, foreign body should be kept in mind as in our case.^[2] Anamnesis and physical examination may be insufficient in cases of pediatric foreign body ingestion. Therefore, imaging is used in case of clinical suspicion.^[3] The first imaging method is thoracic and abdominal radiographs. However, conventional radiographs may be insufficient to determine the exact location of the foreign body. In addition, some objects such as plastic and food pieces are not radiopaque and can be overlooked in radiographs.^[4] Therefore, the combination of conventional radiographs and ultrasonography increases diagnostic accuracy.^[5] In our case, 4 years old patient, who presented with right lower quadrant pain, was sent to the radiology department with a clinical diagnosis of acute appendicitis. A pin



Figure 1: Oblique gray scale ultrasound of right lower quadrant. There is a linear echogenic foreign body causing reverberation artefact in the bowel lumen. No sign of inflammation in the surrounding fat and no sign of perforation are seen

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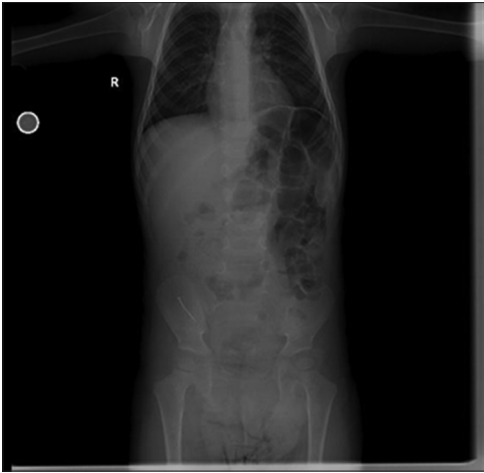


Figure 2: Abdominal plain radiography confirming the sonographic finding about a metallic foreign body, probably a pin. The linear metallic density can be seen in the right lower quadrant

which was first seen with ultrasonography and then confirmed with plain radiograph was found in the bowel loop.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the legal guardian has

given his consent for images and other clinical information to be reported in the journal. The guardian understands that names and initials will not be published and due efforts will be made to conceal patient identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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