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An Unusual Cause of Pediatric Anemia and Jaundice

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Received: January 18, 2025
Accepted: January 29, 2025
https://doi.org/10.1016/j.acepjo.2025.100105

Keywords: *ectopic spleen, hypersplenism, pediatric laparoscopic surgery, partial splenectomy*

1 PATIENT PRESENTATION

An 8-year-old boy presented to the emergency department of our hospital with a 2-day history of abdominal pain. Over the past 6 months, he had experienced symptoms of pallor and poor appetite. One year ago, he had similar symptoms, which improved after symptomatic treatment at another hospital. Physical examination revealed a tender mass in the lower left abdomen. Laboratory tests showed hemoglobin of 78 g/L, platelet count of 116×10^9/L, and indirect bilirubin of 40 μmol/L (reference range: 1.7-13.7 μmol/L). An abdominal-enhanced computed tomography scan was subsequently performed.

2 DIAGNOSIS: ECTOPIC SPLEEN

Enhanced computed tomography examination revealed the absence of a normal spleen in the left upper quadrant and the presence of a large ectopic spleen located in the lower abdomen near the pelvic cavity (Fig A). The patient presented with hypersplenism caused by the ectopic spleen, leading to decreased hemoglobin levels and elevated indirect bilirubin. Additionally, the enlarged spleen compressed the intestines in the lower abdomen, resulting in reduced appetite.

Ectopic spleen is extremely rare, with an incidence of only 0.2%.[1] The primary cause of a wandering spleen is the laxity, elongation, or dysplasia of the spleen's main ligaments.[2] Splenic venous congestion can lead to splenomegaly and hypersplenism.[3] Common treatment options include splenopexy or splenectomy. However, splenectomy may pose a risk of postoperative infection, whereas splenopexy lacks long-term data to confirm its safety, particularly concerning the risk of postoperative splenic infarction. For asymptomatic patients, long-term follow-up and observation are also viable options.[4]

In this case, the ectopic spleen caused intestinal compression, resulting in reduced appetite, whereas hypersplenism led to anemia and jaundice. Simple splenopexy could not resolve the hypersplenism, and splenectomy carried risks of postoperative infection and thrombocytosis. We innovatively performed a laparoscopic partial splenectomy, fixing the residual spleen in the left hypochondrium (Fig B). Postoperative pathology confirmed hypersplenism of the ectopic spleen (Fig C).

Supervising Editor: John Rogers, MD

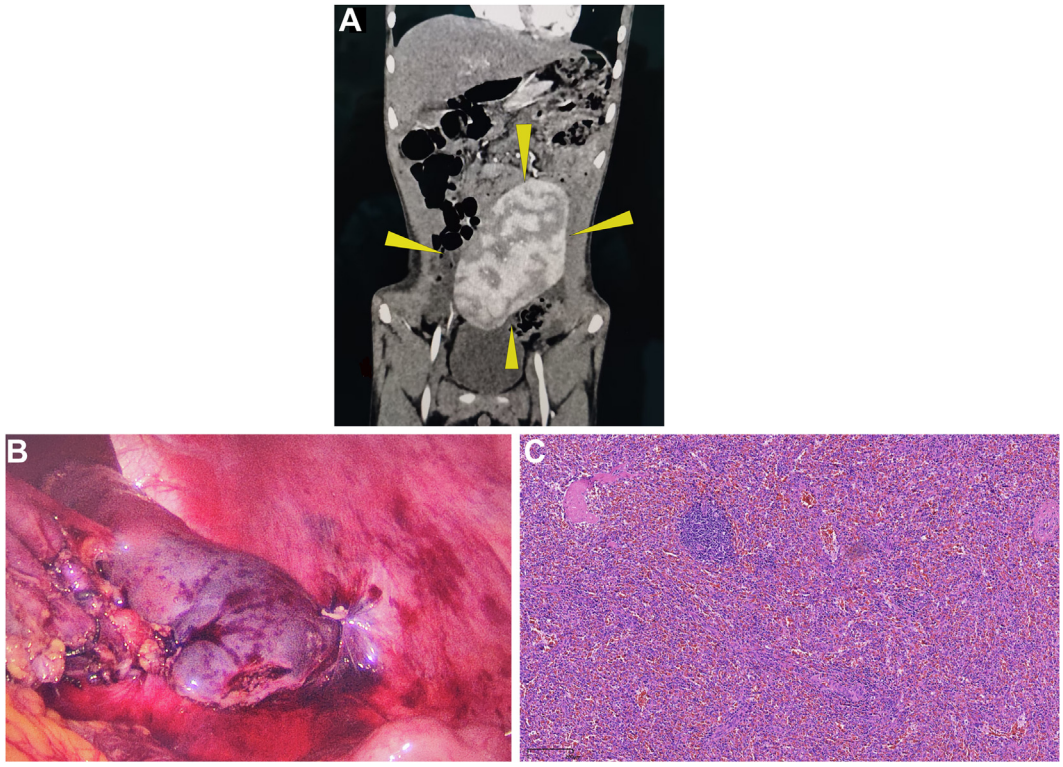

FIGURE. A) Computed tomography showed the spleen was ectopically located in the lower abdomen near the pelvic region and abnormally enlarged (pointed out by yellow arrows). B) After resecting approximately two-thirds of the spleen, the remaining spleen was repositioned to the left lower abdomen and fixed to the abdominal wall. C) HE ×40 magnification. The splenic white pulp was atrophic and reduced, with congestion in the red pulp and relatively empty venous sinuses confirming hypersplenism. HE, hematoxylin-eosin staining.

Postoperatively, the patient experienced rapid improvement in anemia and jaundice, with a full recovery of appetite. No postoperative infections were observed, demonstrating the safety and efficacy of this novel treatment approach.

FUNDING AND SUPPORT

This work was supported by the Anhui Provincial Special Project for Clinical Medical Research and Transformation (Grant No. 202427b10020021).

PATIENT CONSENT STATEMENT

We confirm that informed consent was obtained from the patient's guardians for the publication of the data and imaging included in this case report. Furthermore, we certify that no similar images have been published in this journal in the past 10 years.

CONFLICT OF INTEREST

The authors declare no conflict of interest related to this study.

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How to cite this article: Tang R, Wei D-C, Fang Y, et al. An Unusual Cause of Pediatric Anemia and Jaundice. JACEP Open. 2025;6:100105.

https://doi.org/10.1016/j.acepjo.2025.100105