Letter to the Editor

Echography of intussusception in an adult

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Submitted Mar 21, 2022. Accepted for publication Oct 19, 2022. Published online Nov 09, 2022.
doi: 10.21037/qims-22-266
View this article at: https://dx.doi.org/10.21037/qims-22-266

Introduction

Although rarer in adults than in pediatric patients, intussusception is considered an emergency condition as it causes small bowel obstruction, and may progress to bowel ischemia if treatment is delayed. Computed tomography (CT) is the gold-standard method for diagnosis; however, bedside ultrasound is faster and does not subject patients to radiation exposure. Here, we have discussed a case of intussusception diagnosed using bedside ultrasonography and reviewed a protocol for screening intussusception in the pediatric which may be applied to adult.

Case presentation

A 53-year-old man presented to the emergency department complaining of periumbilical dullness for 2 days. The patient had underlying hypertension and had experienced an unintentional weight loss of 15 kg in 6 months from a baseline of 95 kg. Physical examination revealed tenderness in the right lower quadrant. Bedside ultrasound showed a target sign of the small bowel in the coronal view (*Figure 1A*) and a pseudokidney sign in the longitudinal view (*Figure 1B*). Abdominal CT confirmed small bowel intussusception in the proximal jejunum (*Figure 1C*, arrow). Surgery was subsequently performed, revealing a 4 cm peritoneal tumor over the jejunum. Wedge resection of approximately 30 cm of the small bowel with side-to-side anastomosis was therefore performed. Pathology revealed mucinous adenocarcinoma with peritoneal metastasis. The patient recovered well after surgery and was discharged 13 days following the initial presentation. He was referred to the hematology department for a modified irinotecan and infusional 5-fluorouracil regimen.

All procedures performed in this study were in accordance with the ethical standards of the institutional and/or national research committee(s) and the Helsinki Declaration (as revised in 2013). Ethical approval was granted by the hospital's ethics committee (No. 21MMHIS399e). Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the editorial office of this journal.

Discussion

In this case, ultrasound revealed a typical presentation of intussusception, which accounts for only 1% of bowel obstructions found in adults, with single-center series reporting only 1.5–3.5 cases per year (1). While morbidity related to bowel necrosis, perforation, or septic shock is more often observed when its diagnosis is delayed, the symptoms of intussusception are non-specific, and therefore, its diagnosis is dependent upon imaging technology. The preoperative diagnosis of intussusception is approximately 27% in image-resource-deficient regions but is up to 89.1% if ultrasound or CT scans are available (2,3).

Ultrasound is an accessible imaging modality for the evaluation of acute abdomen that does not involve radiation in the emergency department. Moreover, intussusception can be easily diagnosed with high accuracy using bedside ultrasound (4). A protocol for point-of-care ultrasound in pediatric patients for screening intussusception has previously been reported. It uses a curve or linear probe beginning from the right lower abdominal quadrant to the umbilicus in a clockwise manner, and a positive result for intussusception is based on the identification of a target or

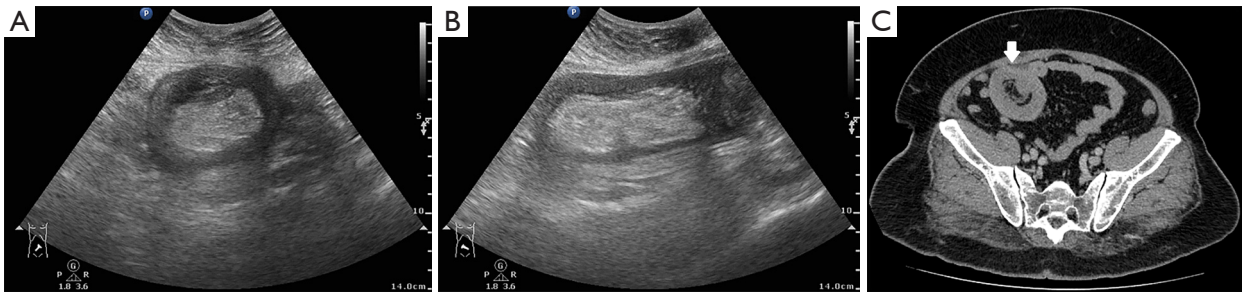

Figure 1 Image of a male diagnosed with intussusception. (A) Ultrasound showed typical target sign, and (B) pseudo-kidney sign over right lower quarter of abdomen. (C) CT confirmed the intussusception and the intussuscepted part at the proximal jejunum (white arrow). CT, computed tomography.

pseudokidney sign (5). As a screening tool, this protocol may also be appropriate for adult patients with non-specific abdominal pain or ileus patterns on the abdominal view.

Acknowledgments

Funding: None.

Footnote

Conflicts of Interest: Both authors have completed the ICMJE uniform disclosure form (available at https://qims.amegroups.com/article/view/10.21037/qims-22-266/coif). The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. All procedures performed in this study were in accordance with the ethical standards of the institutional and/or national research committee(s) and the Helsinki Declaration (as revised in 2013). Ethical approval was granted by the hospital's ethics committee (No. 21MMHIS399e). Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the editorial office of this journal.

Cite this article as: Lin NH, Liao WH. Echography of intussusception in an adult. Quant Imaging Med Surg 2023;13(1):536-537. doi: 10.21037/qims-22-266

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