Imaging appearance of malignancy associated gastrogastric intussusception in an elderly woman

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DESCRIPTION

A 70-year-old woman who was a known case of gastric malignancy under treatment in complementary medicine presented with epigastric pain and multiple episodes of vomiting for 5 days. On examination, her vitals were stable, and she was afebrile. Slight pallor (+/4) and bilateral pedal oedema were seen. Abdominal examination revealed epigastric tenderness and guarding rigidity. Chest radiograph (figure 1A) showed crescentic lucencies under both hemidiaphragms suggestive of pneumoperitoneum. Abdominal ultrasound (figure 1B–D) showed a large lobulated gastric mass having frond-like margins arising from the upper part of the body of the stomach and seen telescoping into its lumen, carrying the omentum and gastric vessels along, suggestive of gastrogastric intussusception. CT of the abdomen (figure 2) confirmed the ultrasound findings and detected one more lesion along the lesser curvature. The site of perforation was detected in the fundus of the stomach, and few necrotic metastatic lymph nodes were seen in the gastrohepatic region. Emergency laparotomy identified the gastrogastric intussusception, and the patient was surgically treated with total gastrectomy.

Gastrogastric intussusception is a very rare type of foregut intussusception reported to occur commonly due to benign gastric lesions. The malignancy-associated occurrence of the intussusception is even rarer with the present case being the second case reported in the English literature after Eom et al. The difference between our case and their case is with respect to the location of the lesion. In the present case, it was located in the proximal body which is a more easily movable and distortable portion of the stomach while in their case it was in the antrum whose mechanism of intussusception is unclear. Four other cases of gastrogastric intussusception reported are secondary to benign lesions like leiomyomas, gastrointestinal stromal tumour and hypertrophic polyps which were located in the proximal stomach as well. All the cases reported are in patients between 65 and 83 years of age probably indicating the age-related redundancy of bowel contributing to its occurrence. Pneumoperitoneum due to perforation adjacent to the intussusception and another focus of enhancing lesion along the...
lesser curvature are additional features seen in our case. Perforation in these cases occurs secondary to the chronicity of the condition that results in ischaemia and necrosis of the tissue. Apart from highlighting the imaging appearance, our case demonstrates the crucial importance of timely diagnosis and intervention of the gastrogastric intussusception as it may lead to perforation, peritonitis and sepsis which may further complicate the patient’s condition. Out of all the imaging modalities shown, CT imaging is indispensable and is the modality of choice in clearly demonstrating the intussusception. Strategies while acquiring CT involves administration of intravenous contrast agent and obtaining multiplanar reconstructions. Intravenous contrast reveals the enhancing gastric wall, short gastric arteries and the omentum being dragged into the lumen by the malignant or benign lesion. Multiplanar reconstructions in axial, coronal and sagittal planes delineate the complete morphology of the lesion, ensuring a confident diagnosis. CT imaging is also helpful in better demonstration of any complications that occur due to intussusception like perforation as depicted in our case.

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**REFERENCES**