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2023 ASRF Schedule

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Norovirus Gastroenteritis Leading to Partial Small Bowel Obstruction

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Introduction

- Acute gastroenteritis (AGE) is a common problem in both inpatient and outpatient settings. Most cases are viral in origin, with norovirus being the most cited.
- Most patients have spontaneous remission within a few days and do not require hospitalization or diagnostic evaluation.
- Hypovolemia/dehydration is the most common complication related to viral gastroenteritis.

Case

A 47-year-old male with no known previous medical history or history of intraabdominal surgeries. He presented with four days of progressive nausea, vomiting, diarrhea, and abdominal discomfort. The physical examination revealed a distended and tender abdomen. The metabolic panel did not reveal any electrolyte derangements. Computed tomography with intravenous contrast revealed partial small bowel obstruction versus less likely ileus. Gastrointestinal pathogen PCR returned positive for norovirus. The patient was given intravenous fluid, nausea control, and pain control, his diet was advanced, and his symptoms subsequently resolved.

Discussion

- AGE is a common problem in both inpatient and outpatient settings. Most cases are viral in origin, with norovirus being the most cited. Typical symptoms include low-grade fever, chills, nausea, vomiting, and abdominal discomfort. The physical examination is usually unremarkable, but abdominal tenderness or signs of volume depletion may be present in severe disease.
- Most patients have spontaneous remission within a few days and do not require hospitalization or diagnostic evaluation. Laboratory evaluation is often helpful in severe disease, immunocompromised patients, or when bloody or mucoid diarrhea is present. Polymerase chain reaction (PCR) gastrointestinal multiplex testing is often the preferred evaluation as it has a high sensitivity, specificity, and turnaround time when compared to traditional stool studies of enzyme-immunoassay studies.
- Treatment is most often supportive, but certain bacterial and parasitic pathogens should prompt treatment with antimicrobial therapy.
- We believe this case to be unusual, as most cases of viral gastroenteritis are uncomplicated, and this patient presented with radiographic evidence of ileus versus partial small bowel obstruction. PCR testing revealed positivity for norovirus. The patient did not have any previous abdominal surgeries, had no family history of early intestinal malignancies, and the symptoms spontaneously resolved with several days of conservative management, making another etiology much less likely.

Conclusion

- AGE is a common diagnosis seen in the primary care clinic, and most patients have an uneventful recovery.
- When severe abdominal pain and prolonged vomiting are present, suspicion of partial obstruction or intestinal ileus should arise.
- Viral gastroenteritis should be considered in the differential for small bowel obstructions when no clear etiology or significant history is present.

References

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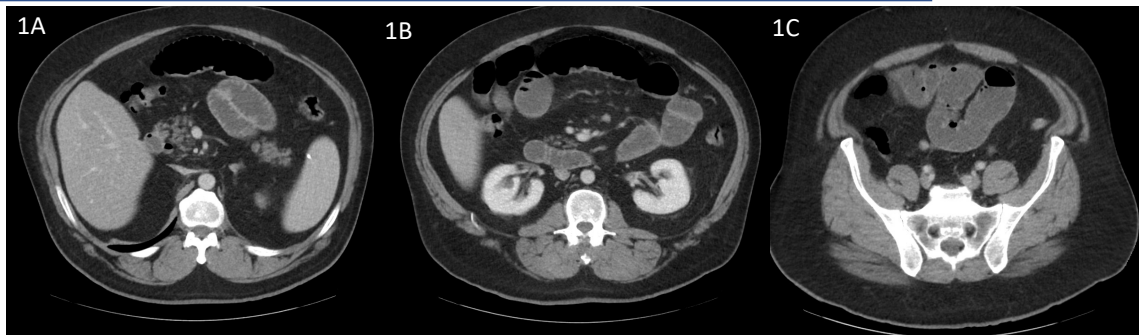


Figure 1A, 1B, 1C: Abdominal CT showing dilated loops of small bowel, measuring up to 4.1 cm in the left lower quadrant.

Figure 2: CT scan (coronal image) showing dilated, fluid filled loops of small bowel.

Figure 3: CT scan showing distended stomach

