

Abdominal Pain due to Opioid-Induced Constipation

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CASE REPORT

A 26-year-old woman with a medical history of intravenous heroin abuse, and known opioid-induced constipation (OIC) complicated by previous admissions for fecal impaction requiring colonoscopic disimpaction, presented to a local emergency department for evaluation of abdominal pain, nausea, and vomiting. Initial evaluation included imaging with computed tomography, which revealed a massively dilated colon with large amounts of stool throughout (Figure 1). Incidentally, the computed tomography identified a pregnancy with gestational age of 32 weeks (Figure 2). The patient was transferred to a tertiary care center for management of severe fecal impaction and newly identified high-risk pregnancy. Ultrasound evaluation showed the pregnancy to be complicated by oligohydramnios and cord prolapse. An emergency cesarean section was performed. The infant did not experience complication from the pregnancy or delivery. Treatment of the patient's severe fecal impaction began with mineral oil-assisted digital disimpaction. Flexible sigmoidoscopy with upper endoscopy was used for further evacuation of stool, followed by a large volume polyethylene glycol ingestion therapy. The stool burden continued to improve with an aggressive bowel regimen of oral laxative therapy and serial enemas. The patient was discharged on daily laxatives and twice-daily polyethylene glycol therapy with gastroenterology and addiction management follow-up.

OIC is the most common gastrointestinal adverse effect as a result of delayed gastrointestinal transit and enhanced sphincter tone from opioid stimulation of the μ and δ receptors.¹⁻³ Many enteric symptoms may improve with chronic opioid use, but constipation will persist; despite repetitive μ receptor stimulation, the colon is the only resistant gastrointestinal organ.⁴ Opioid abuse has become a growing public health concern. The most common gastrointestinal side effect is OIC, which afflicts 41%–81% of patients with chronic noncancer pain.^{1,5} It is important to highlight that those symptoms are often nonspecific and can include abdominal pain, nausea, and vomiting. Hence, maintaining a broad differential diagnosis is of utmost importance, as in our particular case, it could have avoided subjecting the fetus to unnecessary radiation. In OIC, progression to serious complications, such as stercoral colitis, ulceration, and even perforation can be life-threatening. Early recognition and intervention of OIC are critical to prevent serious complications and the associated impact of repeated interventions and hospitalizations on the health care system. Efforts and resources should be focused on raising awareness and strategies to reduce misuse and abuse of opioids.



Figure 1. (A) Transverse and (B) coronal abdominal and pelvic computed tomography scan showing the colon with extensive stool burden with fecal impaction.



Figure 2. (A) Transverse and (B) coronal abdominal and pelvic computed tomography scan showing advanced pregnancy. Fetus is highlighted with double arrows.

DISCLOSURES

Author contributions: C. Jacobs reviewed the literature and wrote the manuscript. D. Yang, T. Brar, and YB Perbtani revised the manuscript. D. Yang is the article guarantor.

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REFERENCES

1. Kalso E, Edwards JE, Moore RA, McQuay HJ. Opioids in chronic non-cancer pain: Systematic review of efficacy and safety. *Pain*. 2004;112(3):372–80.
2. Farmer AD, Drewes AM, Chiarioni G, et al. Pathophysiology and management of opioid-induced constipation: European expert consensus statement. *United Eur Gastroenterol J*. 2019;7(1):7–20.
3. Camilleri M, Malagelada JR, Stanghellini V, Zinsmeister AR, Kao PC, Li CH. Dose-related effects of synthetic human beta-endorphin and naloxone on fed gastrointestinal motility. *Am J Physiol Liver Physiol*. 1986;251(1):G147–54.
4. Nelson AD, Camilleri M. Opioid-induced constipation: Advances and clinical guidance. *Ther Adv Chronic Dis*. 2016;7(2):121–34.
5. Bell TJ, Panchal SJ, Miaskowski C, Bolge SC, Milanova T, Williamson R. The prevalence, severity, and impact of opioid-induced bowel dysfunction: Results of a US and european patient survey (PROBE 1). *Pain Med*. 2009;10(1):35–42.

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