

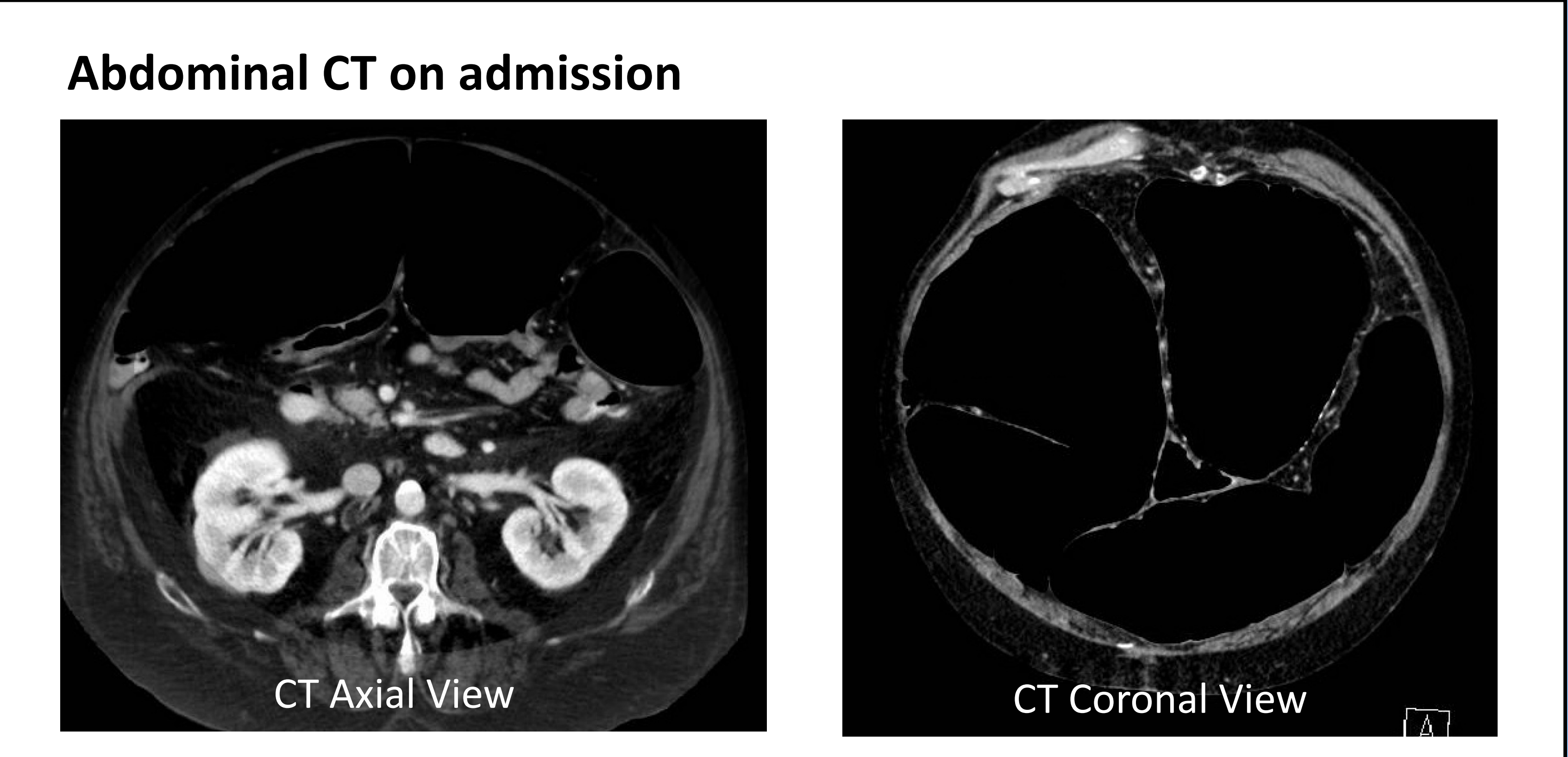
Using Prokinetic Agents in Chronic Intestinal Pseudo-Obstruction (CIPO)



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Introduction
Chronic intestinal pseudo-obstruction (CIPO) is a rare disease.¹ Dilatation may involve the colon or small bowel and is usually due to an underlying neuropathic disorder.² Clinical manifestations of CIPO include abdominal distention, bloating, and pain, which can be acute, chronic, or recurrent.³



Case Description
62-year-old male presenting with three weeks of worsening abdominal pain and distention. He was initially managed conservatively with bowel rest, rectal tube, and avoidance of opioids. However, serial abdominal X-rays showed no improvement in dilation. He was started on pyridostigmine with significant improvement in dilation and had normal bowel movements prior to discharge.

Past Hospitalizations: He had two recent hospitalizations for similar symptoms thought to be due to non-obstructive ileus. At that time, colonoscopy showed significant colonic dilation with no masses or strictures. He was endoscopically decompressed and started on methylnaltrexone with relative improvement during a prior hospitalization.

Past Medical History: Colon cancer with sigmoid resection/colostomy reversal, alcohol use disorder, and L5-S1 fusion on chronic opioids

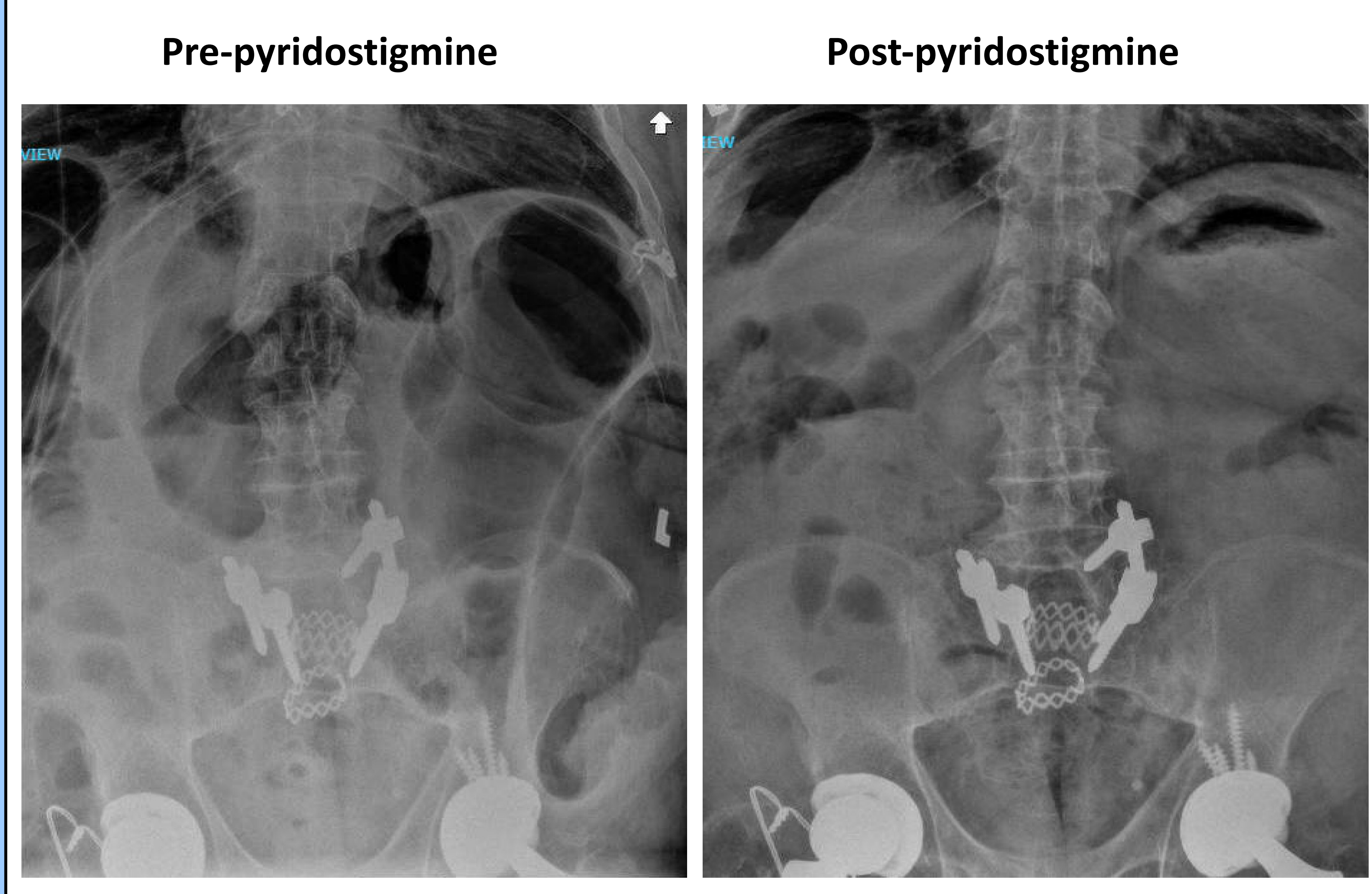
Home Medications: Oxycodone, methylnaltrexone, polyethylene glycol, bisacodyl

Family/Social History: Father (colon cancer), mother (ulcerative colitis s/p colectomy); former smoker, current EtOH use

Physical Exam: Massively distended abdomen with minimal tenderness

Discussion
This patient had recurrent CIPO with multiple admissions without complete resolution of previously suspected non-obstructive ileus despite conservative management and methylnaltrexone. Imaging was consistent with severe colonic dilation. As the patient had no improvement with conservative management, he was started on a trial of pyridostigmine after which he had significant improvement of bowel dilation on X-ray with normal bowel movements, illustrating the role of prokinetics in treating suspected CIPO. Knowledge of CIPO is important to prevent delays in diagnosis. Diagnosis of CIPO should be suspected in patients with these symptoms for at least 3 months in the absence of a mechanical cause.¹ Diagnosis requires exclusion of mechanical obstruction and other causes of dysmotility. Intervention focuses on diet and treatment of the underlying disease. For patients with symptoms despite dietary modifications, prokinetics such as prucalopride or pyridostigmine can be used for symptomatic relief. Pyridostigmine has demonstrated efficacy in the chronic phase of CIPO in small observational studies and is more commonly used in pediatric CIPO.⁷ Through this case, prokinetic agents show promise for broader use in adult CIPO cases.

	Ogilvie's Syndrome ^{4, 5, 6}	CIPO
Prevalence	100 per 100,000*	0.80-1.00 per 100,000
Course	Acute	Chronic
Anatomic involvement	Colonic dilatation, usually cecum, right colon	Colonic or small bowel dilatation
Presentation	<ul style="list-style-type: none"> Abdominal distention Cramping pain Nausea/vomiting 	<ul style="list-style-type: none"> Abdominal distention Abdominal pain Bloating
Patho-physiology	<ul style="list-style-type: none"> Multifactorial Autonomic dysfunction strongly implicated 	<ul style="list-style-type: none"> Neuropathic disorder Myopathic disorder Malfuction of interstitial cells of Cajal
Management	<ul style="list-style-type: none"> Fluid resuscitation, correction of electrolyte abnormalities, avoidance of opioids/ anticholinergics Ambulation, bowel rest Decompression with NG or rectal tubes Pharmacologic treatment (neostigmine) Operative intervention if colonic perforation or ischemia 	<ul style="list-style-type: none"> Dietary modification, treatment of underlying disease Prokinetics, such as Prucalopride, for symptomatic relief (Grade 2C) Pyridostigmine in chronic phase of CIPO



Conclusion
Adults can be affected by chronic intestinal pseudo-obstruction despite it being a relatively rare disease and being primed to consider it as a diagnosis prevents delays in its treatment and readmissions. Prokinetic agents such as pyridostigmine and prucalopride show promise for broader use in adult CIPO cases.

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