

Successful Management of Early Postoperative Small Bowel Obstruction Using Steroid: a Case Report

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ABSTRACT

Background: Early Postoperative Small Bowel Obstruction (EPSBO) is a primary factor contributing to death and morbidity after pelvic and abdominal surgery. Although it is frequently regarded as a surgical emergency, the most recent research indicates that non-operative management is always preferable unless there are complications.

Case: A 53-year-old woman came with symptoms of small bowel obstruction and a history of hysterectomy three weeks earlier. The patient refused surgical intervention, so a conservative approach was taken. She was given methylprednisolone 500 mg/day in two doses daily for three consecutive days, in addition to nasogastric tube insertion and symptomatic therapy. After three days of follow-up, the patient showed symptoms improvement, and the abdominal X-Ray and CT Scan showed no abnormal findings.

Discussion: The majority of Early Postoperative Small Bowel Obstruction (EPSBO) cases, according to the most recent research, may be managed without surgery. Additionally, due to their anti-inflammatory properties, some medications, like corticosteroids, have been found to be beneficial and effective for EPSBO. This is because they may help resolve the obstruction and lessen the edema and fibrin deposition associated with EPSBO following abdominal surgery.

Conclusion: Conservative therapy with steroids appears promising due to its lower risk profile and greater patient comfort. However, the exact mechanism and its efficacy in treating EPSBO have yet to be fully concluded, so further research is still needed.

Keywords: Corticosteroids, non-operative intervention, small bowel obstruction

ABSTRAK

Latar Belakang: Obstruksi Usus Halus Pasca Operasi Dini (EPSBO) merupakan faktor utama yang berkontribusi terhadap kematian dan morbiditas setelah operasi panggul dan abdomen. Meskipun sering dianggap sebagai keadaan darurat bedah, penelitian terbaru menunjukkan bahwa manajemen non-operatif selalu lebih diutamakan kecuali ada komplikasi.

Kasus: Seorang wanita berusia 53 tahun datang dengan gejala obstruksi usus halus dan riwayat histerektomi tiga minggu sebelumnya. Pasien menolak intervensi bedah, sehingga pendekatan konservatif diambil. Dia diberikan metilprednisolon 500 mg/hari dalam dua dosis selama tiga hari berturut-turut, selain pemasangan selang nasogastrik dan terapi simptomatik. Setelah tiga hari pemantauan, pasien menunjukkan perbaikan gejala, dan rontgen abdomen serta CT scan tidak menunjukkan temuan abnormal.

Diskusi: Mayoritas kasus Obstruksi Usus Halus Pasca Operasi Dini (EPSBO), menurut penelitian terbaru, dapat dikelola tanpa bedah. Selain itu, beberapa obat, seperti kortikosteroid, telah terbukti bermanfaat dan efektif untuk EPSBO karena sifat anti-inflamasi mereka. Hal ini terjadi karena beberapa obat tersebut dapat membantu mengatasi obstruksi dan mengurangi edema serta deposisi fibrin yang terkait dengan EPSBO setelah operasi abdomen. Meskipun hasilnya menjanjikan, mekanisme pasti dan efektivitasnya dalam mengobati EPSBO belum disimpulkan, dan penelitian lebih lanjut diperlukan.

Simpulan: Terapi konservatif dengan pemberian steroid menunjukkan hasil yang menjanjikan karena profil risikonya yang lebih rendah dan kenyamanan pasien yang lebih baik. Namun, mekanisme pasti dan efektivitasnya dalam mengobati EPSBO belum dapat disimpulkan sepenuhnya, sehingga penelitian lebih lanjut masih diperlukan.

Kata Kunci: Kortikosteroid, intervensi non-operatif, obstruksi usus halus

INTRODUCTION

In most cases, bowel obstruction that develops within 30 days following abdominal surgery is referred to as early postoperative small bowel obstruction (EPSBO). It is frequently difficult to distinguish between postoperative paralytic ileus and EPSBO because the paralytic state persists for 24 hours in the small intestine and 72 hours in the colon following surgery.¹ A surgical emergency known as small bowel obstruction occurs when the intestinal contents cannot pass through the small intestine due to blockage. Constipation, vomiting, distention, and abdominal pain are the hallmarks of small bowel obstruction (SBO). EPSBO after open surgery is common because of adhesions.² During surgical treatment, the adhesive etiology of bowel obstruction is definitively confirmed. A history of prior episodes of bowel obstruction due to adhesions or the imaging (typically CT scan) method of ruling out other causes of bowel obstruction are two non-invasive methods to confirm the adhesive etiology of bowel obstruction.³

Following abdominal and pelvic surgery, a significant cause of mortality and morbidity is small bowel obstruction, either mechanical or functional.

According to recent estimates, between 225,000 and 345,000 patients are admitted each year for SBO, at an approximate cost of \$1.3-5 billion USD. The majority of postoperative intestinal blockages happen following gastrointestinal surgery. Despite the fact that SBO following hysterectomy is relatively rare, with reported rates ranging from 0.12% to 1.1% depending on the surgical approach, thousands of patients could potentially undergo an SBO after a hysterectomy given the annual performance of more than 400,000 hysterectomies.⁴

About 70–90% of EPSBO patients respond well to non-operative treatment. It is questionable how long non-operative management can be tried for. Surgery delays raise morbidity and mortality, according to a number of retrospective series and databases. Although there is insufficient data to determine the ideal length of non-operative treatment, the majority of authors and the panel believe that a 72-hour period is suitable and safe. The mainstay of non-operative care is decompression with a long intestinal or nasogastric tube and nil per os.³ Since corticosteroids have anti-inflammatory properties, they have been used for a long time to help resolve obstructions by potentially reducing fibrin deposition and edema linked to EPSBO. Steroids have been used in Japan to lessen encapsulating peritoneal sclerosis' inflammatory state. Obstructive bowel symptoms are

brought on by adhesive and inflammatory encapsulation of the intestinal tract, which is caused by intraperitoneal inflammation.⁵

CASE ILLUSTRATION

A 53-year-old woman came to Emergency Department (ED), dr. Zainoel Abidin General Hospital (RSUDZA) Banda Aceh on 16th of January 2022, complaining of nausea and vomiting for the last five days, with the frequency of more than five times a day, accompanied by a colicky abdominal cramp. Nausea and vomiting especially complained after she ate or drank, even a glass of water. Fever complaint denied. The patient also complained that she had not defecated since the previous week, but the fart remained. She has been feeling hungry and thirsty for the previous three days but has undone the intention to eat or drink for fear of vomiting.

The patient had undergone a hysterectomy operation about three weeks earlier due to uterine myoma. There was no abdominal complaint right after the surgery, as the patient confessed that she had already farted just a few hours after surgery and defecated the next day. The patient was discharged after being treated two days post-surgery with only minimal abdominal distention problem. The problem was then completely resolved after two days at home.

On vital sign examination, the patient was found to be hemodynamically stable with a level of consciousness of fully awake and aware of the surrounding. Her blood pressure was 110/75 mmHg. Pulse rate was fast, 108 times per minute regularly, but felt weak though palpable. The respiratory rate was normal at 20 times a minute, and the body temperature was 36.8°C.

Physical sign examination showed no sunken eyes nor dryness of mucous membrane. Chest wall examination was also normal. Abdominal distention was found on inspection, as well as a surgical scar. No external hernia was found on the abdomen or groin region. On palpation, direct tenderness was found on the umbilical region of the abdomen, but there was no sign of peritonitis or bowel strangulation. Skin turgor was fine. On auscultation, bowel sound was slightly higher than normal, with no borborygmi sound heard. Rectal examination found no feces on the examiner's gloves after the examination.

Laboratory findings from RSUDZA's laboratory reported a hemoglobin level of 13,0 g/dL, leucocyte of 17,500/mm³, and thrombocyte of 302,000/mm³. No electrolyte disturbance was found, with a Sodium level of 149 mmol/L, potassium 3.90 mmol/L, chloride 105 mmol/L, and Calcium of 8,6 mmol/L. Ureum was 65 mg/dL, BUN was 30.4 mg/dL, and creatinin 1,30 mg/dL. BUN/Creatinine : 23.3. Patient was then immediately taken for plain 3 position abdominal X-Ray, shown in **Figure 1**. The x-ray clearly showed small bowel dilatation. Air fluid level was also obvious in Left Lateral Decubitus (LLD) position. The radiologist concluded that the X-Ray showed small bowel obstruction (SBO) but could not determine the position of the obstruction.

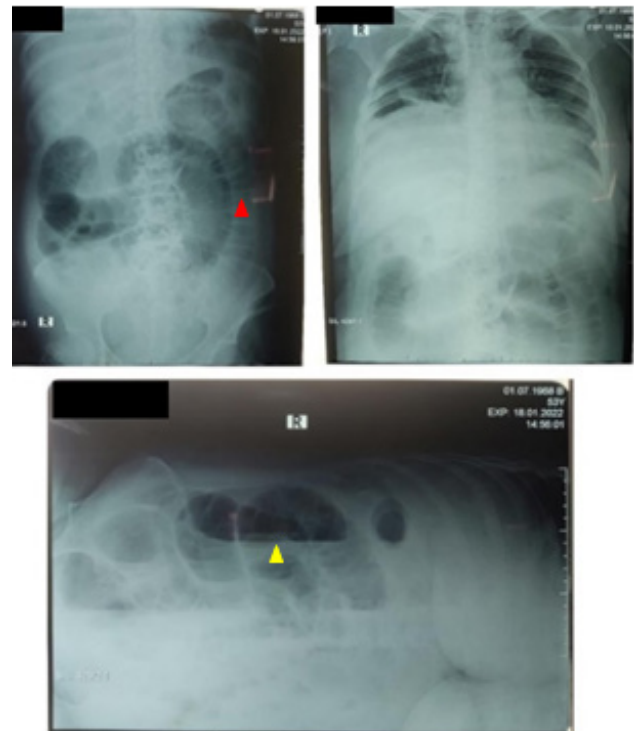


Figure 1. Plain 3 position abdominal x-ray taken from ED.
Red arrowhead: coiled spring appearance. Yellow arrowhead: air-fluid level appearance

In ED, the patient was then resuscitated using the normal saline solution since she had tachycardia and weak pulse on palpation, showing the degree of dehydration, though no sunken eyes nor change in skin turgor. No electrolyte correction was done. The patient made nil per os, and an NG tube was inserted for decompression.

Initially, the patient was referred to the surgery department for the emergency measure. The surgeon

suggested the need for emergency surgery to explore and confirm the cause of the obstruction. After the patient and family were informed and asked for the surgery consent, they refused and continued with non-operative treatment. The patient was then transferred to the hospital ward for the next evaluation.

On the first day of follow-up, the patient had nausea, bowel distention, abdominal cramp, and not defecating. NG tube remained inserted, and the patient made nil per os with parenteral nutrition. The patient also planned for an abdominal CT Scan with contrast on the 27th of January 2022 due to the high demand for CT Scan examination in the radiology department. On the second day, as the symptoms were not improved, a dose of 500 mg/day methylprednisolone was administered in two divided doses for three days.

The patient's symptoms (nausea, vomiting, and abdominal cramps) improved on the third day. Bowel distended remained, and she did not defecate. After

three days of steroid administration, the complaints were completely resolved. The patient had no more nausea and vomiting, no bowel distention, and had already defecated with stool consistency of type 5 (Bristol Stool Chart). She also started to gradually eat a soft food diet on the fourth day, and she had no more complaints about abdominal cramps and difficulty in defecation. The patient was then evaluated for another day, and the plain 3 position abdominal x-ray was redone. The result was normal, with no sign of obstruction, as shown in **Figure 2a**. The patient was then discharged and continued with outpatient treatment.

One week later, she returned to the hospital as an outpatient and told us the symptoms were completely resolved. She had no more abdominal cramps, nausea, or vomiting and defecated daily with good stool consistency. She also returned for an abdominal CT Scan examination a few days later. The results showed normal abdominal findings as shown in **Figure 2b**.

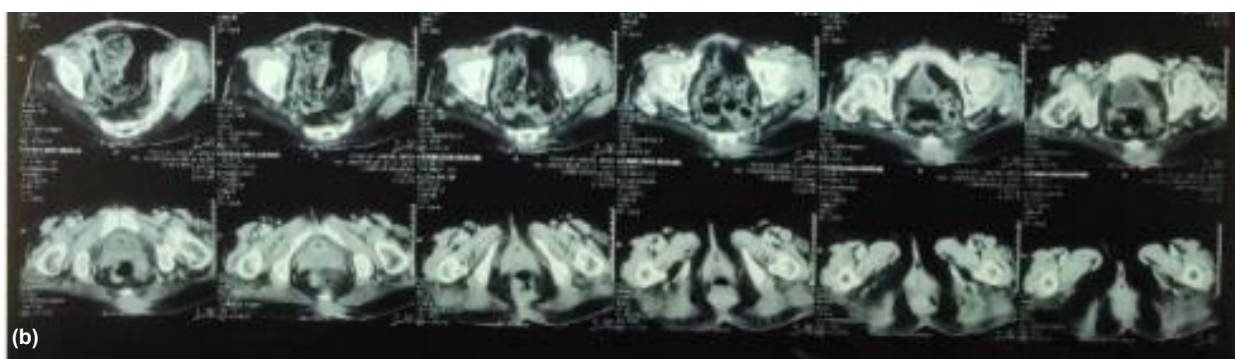
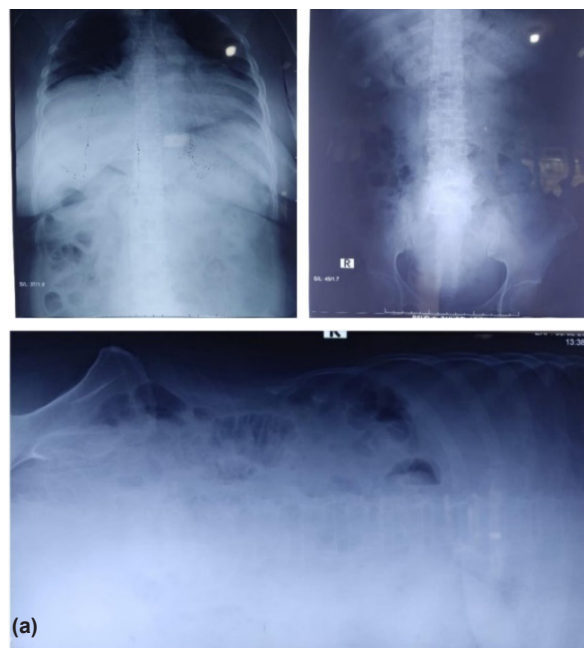


Figure 2. (a) Plain 3 position abdominal X-Ray taken after three days dose of steroid. (b) Abdominal CT Scan examined eight days after administration of steroid

DISCUSSION

A common clinical condition that is frequently first identified and treated by an emergency physician is small bowel obstruction. According to estimates, SBO causes 300,000 hospital admissions per year in the US, with an emergency department (ED) handling admissions for about 70% of these patients. An estimated 2 percent of patients in the ED are diagnosed with intestinal obstruction, with the accompanying symptom of abdominal pain; 15 percent of patients are admitted directly from the ED to a surgical unit. Primary emergency medicine (EM) textbooks teach the "classical" signs and symptoms as various combinations of abdominal pain, nausea, vomiting, and distention in the abdomen; however, not all patients exhibit these classic signs and symptoms, despite the wide variation in presentations.⁶ However, targeted history and physical examination can offer useful information in the evaluation of patients with suspected SBO, in addition to appropriate imaging.⁷

Patients' medical histories may include vomiting and nausea, irregular 4-5 minute bursts of abdominal pain, distension of the abdomen, excessive bowel movements, and difficulty swallowing food and liquids. Then, as a result of intestinal fatigue, symptoms could worsen and include constant pain, hypoactive bowel movements, and increasing vomiting. Patients with SBO may still pass stool and experience flatus, but these symptoms are not specific for a diagnosis.⁷ Incomplete obstruction patients may have watery diarrhea. One may mistake an episode of EPSBO for gastroenteritis if the diarrhea is watery. Patients with a relatively high obstruction who are admitted soon after the onset of symptoms may also have stool problems. Furthermore, not every one of these symptoms may be evident, particularly in older people whose pain is frequently less noticeable.³ The likelihood of the disease existing is unaffected by the patient's gender, guarding, history of similar complaints, degree and duration of pain, or presence of nausea.

Prior abdominal surgery has a likelihood ratio (+LR) of 3.86 and a negative likelihood ratio (-LR) of 0.19; constipation history has a likelihood ratio of +LR = 8.8 and -LR = 0.59. It is important to identify certain historical factors, such as prior bowel obstructions and how they were treated, abdominal surgeries, radiation therapy, and other abdominal conditions (e.g. g. neoplasm, inflammatory bowel disease). In addition, a history of emergency surgery, penetrating abdominal trauma, gynecologic surgeries performed in the past five years, omental resection, and emergency surgery

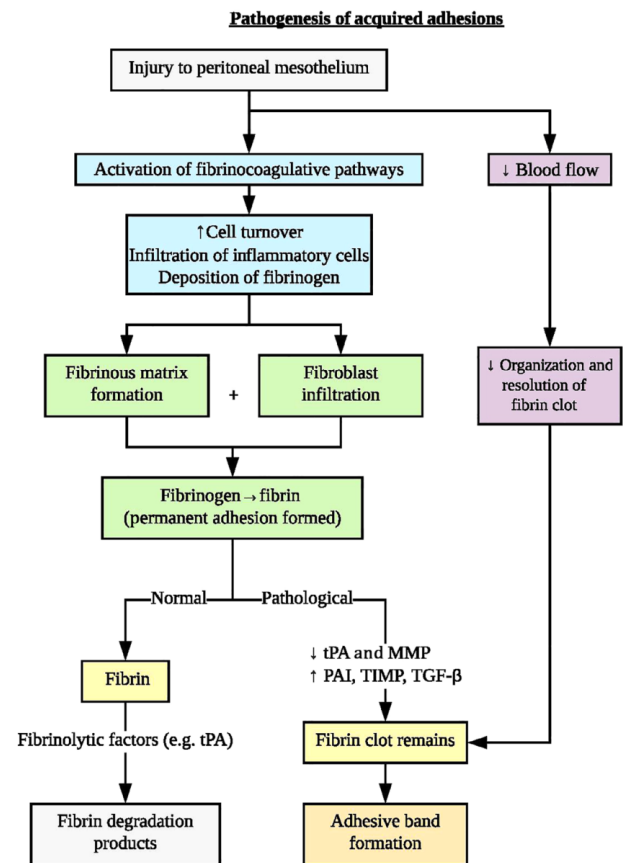


Figure 4. Pathogenesis of acquired adhesions in the small bowel. MMP, matrix metalloproteinase; PAI, plasminogen activator inhibitor; TGF- β transforming growth factor- β ; TIMP, tissue inhibitor of metalloproteinase; tPA, tissue plasminogen activator⁸

are risk factors that may be useful.⁷ Damage to the peritoneal mesothelium and the resulting inflammation triggers pathways, causing blood clotting. It results in an increase in cell count, the deposition of fibrinogen, and the release of inflammatory chemicals. The fibrinogen attaches itself sticky to neighboring structures as it forms a matrix. Fibroblasts migrate into the area, where they become permanently attached and transform fibrinogen into fibrin. Fibrin is normally broken down into smaller pieces known as fibrin degradation products by tissue plasminogen activators. Adhesive bands, however, are the result of an imbalance in the synthesis and degradation of fibrin. The equilibrium is upset by elements like elevated plasminogen activator inhibitors and decreased tPA and matrix metalloproteinase activity, as well as by tissue inhibitors of metalloproteinases. In both human and animal models, overexpression of transforming growth factor- β heightens adhesions by regulating the functions of matrix metalloproteinase/tissue inhibitor of metalloproteinase and plasminogen activator inhibitor/tPA. Peritoneal damage from surgery can lead to persistent fibrin matrix and decreased blood flow, in addition to molecular alterations that complicate the management of clots.⁸

The patient in our case, a 53-year-old woman, came to Emergency Department (ED), dr. Zainoel Abidin General Hospital (RSUDZA) Banda Aceh on 16th of January 2022 with her main complaints of nausea and vomiting for the last five days (more than five times a day), accompanied by colicky abdominal cramps. She experienced nausea and vomiting, especially after she ate or drank even a glass of water. The patient also complained that she had not defecated since the previous week but farted. She had felt hungry and thirsty for the previous three days but avoided eating or drinking for fear of vomiting. The patient had undergone a hysterectomy operation three weeks prior due to uterine myoma. There was no abdominal complaint right after the surgery, as the patient confessed that she had already farted just a few hours after surgery and defecated the next day.

Upon physical examination, the patient with SBO may present as agitated, unwell, and dehydrated with signs of sepsis, such as a rapid heart rate, fever, dry mucous membranes, decreased skin elasticity, and low blood pressure, especially when standing. Abdominal examination may reveal moderate distension of the abdomen when the obstruction is proximal or severe distension when the obstruction is distal. Initially, bowel sounds may be hyperactive due to muscular reflexes but may be absent as intestinal muscles tire. There may be visible abdominal tympany when air is present in the bowel loops or dullness when liquid is present. Palpation of the abdomen may reveal tenderness, but the exact location does not necessarily indicate the site of obstruction. External hernias should be examined and ruled out as a potential cause of obstruction. Malignant obstruction may be indicated by an abdominal mass, hepatomegaly, and lymphadenopathy. An obstruction could be caused by a rectal mass or fecal impaction, as revealed by a rectal examination. Rebound tenderness, guarding (voluntary or involuntary), and abdominal rigidity are indicators of a complex obstruction.⁹

In our case, abdominal distention and surgical scar were found on the inspection. No sign of an external hernia was found on the abdomen or groin region. On palpation, direct tenderness was found on the umbilical region of the abdomen, but no sign of peritonitis or bowel strangulation. Skin turgor was fine. On the auscultation, bowel sound was slightly higher than normal, with no borborygmi sound heard. Rectal examination found no feces on the examiner's gloves after the examination.

Basic laboratory tests such as blood count, lactate, electrolytes, CRP, and BUN/creatinine should be carried out in patients diagnosed with EPSBO. White blood cell counts above 10,000/mm³ and CRP levels above 75 are suggestive of peritonitis, but their accuracy is only moderate. Patients with bowel obstruction frequently have abnormalities in their electrolyte levels, especially low potassium levels, which need to be corrected. Dehydration is also common in these patients, and as a result, BUN/creatinine levels should be evaluated to identify the risk of acute kidney injury.³

For our patient, laboratory findings from RSUDZA's laboratory reported hemoglobin levels of 13.0 g/dL, leucocyte of 17,500/mm³, and thrombocyte of 302,000/mm³. No electrolyte disturbance was found, with a Sodium level of 149 mmol/L, potassium of 3.90 mmol/L, chloride 105 mmol/L, and Calcium of 8.6 mmol/L. Ureum was 65 mg/dL, BUN was 30.4 mg/dL, and creatinin 1.30 mg/dL. BUN/Creatinine : 23.3.

The physical examination and medical history can help diagnose SBO, but they are not totally reliable in identifying SBO and its possible complications, such as strangulation or ischemia. Imaging methods are now essential for SBO diagnosis as a result. There are several diagnostic techniques available, including computed tomography (CT), magnetic resonance imaging (MRI), ultrasound (US), and plain radiography.⁷

Plain radiographs, both upright and inclined, are frequently the first imaging tests ordered to evaluate SBO. Because of their affordability, ease of use, and capacity to monitor the course of a disease over time, they are beneficial for preliminary diagnostic assessment. However, their effectiveness is limited, with only 66-85% sensitivity. Furthermore, over 20% of abdominal radiographs obtained for SBO patients may not exhibit any particular symptoms or may seem normal.⁷

Findings from radiography can demonstrate SBO. The absence of small bowel gas or the presence of small amounts of gas within up to four non-distended loops (<2.5 cm) of the small intestine is considered a normal small bowel gas pattern. When a gasless or non-distended colon is present, dilated loops of gas or fluid in the small intestine are the gas pattern on plain radiography that indicates small bowel obstruction (SBO). On X-ray imaging, some SBO patients, however, may show less obvious findings, such as air-fluid levels and a normal or slightly enlarged colon. The "string of pearls" sign is another distinctive feature on

abdominal X-rays that may indicate SBO. This sign is characterized by small amounts of intraluminal gas that accumulate along the superior wall, separated by the valvulae conniventes, and is visible in small bowel loops that are primarily fluid-filled. Abdominal radiographs showing an erect or decubitus position typically display the string of pearls sign.¹⁰

Abdominal radiography may not accurately reflect the severity of SBO if the dilatation is mainly due to fluid accumulation in the bowel loops. Moreover, upright radiography may detect perforation, but it is not entirely reliable to diagnose intestinal perforation. Therefore, if there is a high suspicion of SBO, other diagnostic tests should be performed since a negative radiograph cannot rule out the possibility of SBO.⁷

In this case, the ED X-ray of the patient showed small bowel dilatation and air-fluid level evident in the Left Lateral Decubitus position. The radiologist's report suggested small bowel obstruction, but the exact site of obstruction could not be determined. Helical CT scans are highly accurate in detecting small bowel obstruction and predicting the likelihood of strangulation, with a success rate of about 90%. The diagnostic accuracy of CT scans can be improved using water-soluble contrast. Contrast progress can be evaluated via X-ray 24 hours after the CT scan. Instead of directly showing adhesions, CT scans help rule out other causes of bowel obstruction, indirectly suggesting their presence. This makes CT scans the preferred imaging method for diagnosing suspected adhesions in EPSBO and guiding the decision on emergency surgery, as per the workgroup.³

CT scans play a crucial role in both diagnosing the severity of bowel obstruction and guiding treatment decisions. They can definitively differentiate complete obstructions, requiring surgery, from partial ones potentially managed non-surgically. Additionally, CT scans pinpoint the exact location of the blockage, whether in the jejunum or pelvic area. Critical signs like closed loops, bowel wall damage (ischemia), and free fluid within the abdomen on CT scans all raise red flags, signaling urgent surgical intervention.³

While CT scans reign supreme for diagnosing suspected adhesions in EPSBO, other imaging tools have their niche. Ultrasound, in skilled hands, shines brighter than plain X-rays. It uncovers free fluid, evaluates dehydration, and crucially avoids radiation, making it safe for pregnant women. In confirmed cases, MRI steps in as a partner to ultrasound, offering intricate anatomical details.³

There is currently no consensus on the best management approach for EPSBO. It is unclear how long non-operative management should be used and how to accurately identify high-risk patients who may develop complications like ischemia, gangrene, or perforation. Some surgeons believe that almost all patients with complete SBO should undergo emergency laparotomy due to the perceived risk of increased morbidity and mortality and delayed surgery. Many studies have shown that surgical management of EPSBO can be costly and associated with morbidity, and non-operative treatment can be effective in resolving the obstruction for some patients.¹¹ New surgical techniques and post-operative care improvements challenge old assumptions about managing small bowel obstructions. Debate swirls around the established guidelines. Recent studies advocating early or semi-urgent surgery for SBO patients highlight potential benefits: reduced complications, shorter hospital stays, lower costs, and improved suitability for minimally invasive laparoscopy. This approach might also decrease the risk of future blockages. However, it's not a one-size-fits-all solution. Accurately identifying which patients benefit from surgical intervention and who are good candidates for laparoscopy remains crucial. Future advancements in imaging technology promise better patient selection for optimal outcomes.¹²

The primary objective when assessing a patient with SBO is to quickly detect any signs of hemodynamic instability, strangulation, or bowel ischemia and determine whether immediate surgical intervention is necessary. These decisions should be made in conjunction with resuscitative measures. Patients with SBO should receive intravenous (IV) fluid resuscitation and symptomatic relief using antiemetics and analgesics. They should also avoid food and drink (be made nil per os) to allow for bowel rest. IV fluids should contain electrolyte replacements to address dehydration and hypovolemia.⁷

For SBO patients without peritonitis or strangulation, conservative therapy and symptomatic management are generally recommended and have been reported to be successful in 43-73% of cases, with the improvement usually seen within 48 hours. Partial SBO managed conservatively has a low incidence of strangulation. While avoiding surgery might seem appealing, it's worth noting that each episode of small bowel obstruction (SBO) raises the risk of it happening again, especially if caused by adhesions. Studies show that the recurrence rate for adhesion-related SBOs after

conservative treatment falls between 19% and 53%, meaning surgery might be a more long-term solution in some cases.⁷

While NG tubes can ease discomfort in SBO patients with bloating, pain, and intense nausea/vomiting by relieving pressure buildup before the blockage, the overall benefit is uncertain due to limited research. However, for severe cases involving repeated nausea/vomiting, extreme bloating/pain, or confusion, doctors often use NG tubes to decompress the gut ahead of the obstruction.⁷ Waiting it out isn't an option for stubborn small bowel obstructions (SBOs). Even if patients seem stable, studies warn against conservative management beyond 3-5 days due to the risk of complications. Some experts even advocate for earlier intervention within 24 hours to minimize risks and improve outcomes.¹²

To summarize, treating SBO involves weighing the potential benefits and drawbacks of non-surgical and surgical options, especially in cases without peritonitis or strangulation, which are considered major indications for surgery. Surgeons may hesitate to recommend surgery because of the wide belief that adhesion formation after surgery can increase the risk of recurrence.¹³

Here, the patient was admitted to the emergency department and was initially treated with a normal saline solution due to tachycardia and weak pulse on palpation, indicating dehydration. Although there were no signs of sunken eyes or changes in skin turgor, no electrolyte correction was administered. The patient was instructed to refrain from oral intake, and an NG tube was inserted to decompress the bowel.

Certain medications, such as somatostatin and corticosteroids, have been found to be helpful in treating SBO. Somatostatin is a hormone naturally found in various body parts, including the posterior pituitary, stomach lining, and pancreas. It can effectively reduce gastric acid secretion, inhibit muscle contractions in the gastrointestinal tract, and suppress the secretion of insulin and growth hormone. It has also been used to treat EPSBO. While there are various treatment options available, their effectiveness can vary significantly.¹⁴ For decades, anti-inflammatory drugs called corticosteroids have been used to combat swelling and clot formation associated with a specific type of bowel obstruction called encapsulating peritoneal sclerosis. This approach helps resolve the blockage by targeting the inflammation surrounding the intestines. In Japan, doctors have successfully used corticosteroids to ease the inflammatory process

in EPSBO patients, where inflammation within the abdominal lining leads to "encapsulation" of the intestines, causing obstruction symptoms.⁵ According to a case report published in 2021 by Shohei et al., the use of steroids (specifically prednisone) of 500 mg per day for two consecutive days, followed by a tapering-down regimen in patients with postoperative SBO, can improve the symptoms. The report also notes that abdominal X-rays showed significant improvement in the degree of small intestine dilation.¹⁵

In our particular case, the patient's symptoms did not improve after the initial treatment, prompting the administration of 500mg/day of methylprednisolone in two divided doses for three days. By the third day, the patient's complaints of nausea, vomiting, and abdominal cramps had improved, although bowel distention was present, and the patient had not defecated. After three days of steroid administration, the patient's complaints had completely resolved, and she could defecate, with stool consistency classified as type 5 (Bristol Stool Chart). On the fourth day, the patient began to gradually eat a soft food diet and had no more complaints of abdominal cramps or constipation. The patient was evaluated for another day and underwent a plain 3-position abdominal X-ray, showing no signs of obstruction. The patient was then discharged and continued outpatient treatment.

CONCLUSION

To date, the optimal management of EPSBO remains a subject of debate, with strong clinical evidence supporting both surgical and conservative approaches. Treatment decisions are often based on the treating physician's personal experience. However, based on this case report, conservative therapy with steroids appears promising due to its lower risk profile and greater patient comfort. In the future, a randomized controlled trial is needed to definitively determine the best management strategy for EPSBO and to establish clear parameters for selecting between conservative and surgical interventions.

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