Case study

A Case of Small Bowel Intimation with Sepsis

Abstract: -

Introduction: - Sepsis is a life-threatening organ failure that occurs in severely ill patients as a result of a primary infectious cause or subsequent infection of injured tissues. The systemic effects of sepsis have been extensively studied, and evidence of local alterations and repercussions in the intestinal mucosal compartment is gradually characterizing sepsis-related changes in the gut. The current study focuses on sepsis-induced intestinal barrier failure, which includes increased epithelial permeability, which may allow bacterial translocation. The small bowel, commonly known as the small intestine, is roughly 1 inch in diameter and 20 to 30 feet long. It has a lot of folds to help it fit inside the abdominal cavity. The small bowel is connected to the stomach on one end and the big intestine on the other.

Patient information: -He was 63 years old male admitted to Acharya Vinoba Bhave Rural hospital sawangi meghe Wardha in MICU ward with chief complaints ofalteringsensorium. Low urine outputvomiting,loss of appetite, swelling of the abdomen crampy abdominal pain that comes and goes.

The main diagnosis, therapeutic intervention and outcomes: A CT scan revealed a thicker transverse colon wall. Her flexible sigmoidoscopy revealed “patchy inflammation and an isolated area of severe deep ulceration with nodularity and edema,” according to the report. The patient was given a preliminary diagnosis of "Inflammatory Bowel Disease—likely Crohn's," and was treated with steroids and Patient was done colonoscopy and course of inj. hydrocortisone, inj. Neomol, inj. levipril.

Comment [I A1]: Of altering sensorium

Comment [I A2]: Urine output, loss of appetite, swelling of the abdomen, cramp with frequent abdominal pain

Comment [I A3]: Course of hydrocortisone, the other drugs are not clear and have to write the scientific names.

Conclusion: -In the case of acute small-bowel obstruction, helical CT is a highly sensitive approach for diagnosing or ruling out intestinal ischemia. In patients with significant trauma who are being assessed for sepsis of unknown origin, abdominal computed tomographic scans accurately identify intra-abdominal foci of infection. This patient was diagnosed with small bowel intimation and sepsis.

Keywords: -Innate Immunity, Gut-Barrier Dysfunction, Perfusion Abnormalities, Enzymatic Response, Microbiome, Sepsis.

Comment [I A4]: What do you mean with the word intimation?
is small bowel ulceration or not

Introduction And Background: -Scar tissue, hernias, and cancer are the most common causes of small intestinal blockages. The majority of blockages in the United States are caused by previous procedures. After being touched during an operation, the bowel frequently produces scar bands (called adhesions). The more intestinal surgeries you have, the more scars you're going to get. A slight bow might occur if the bowel becomes stuck in adhesions. It has the potential to cause a minor bowel obstruction. The blood flow to the gut tissues may be compromised in severe cases, and the tissues may perish. This is a potentially fatal circumstance. "Life-threatening organ failure induced by a dysregulated host response to infection" is how sepsis is defined (Singer et al., 2016). It affects neonates, children, and adults all around the world. Sepsis, which is distinguished from an uncomplicated infection by the dysregulated host response and severe organ failure, can appear as or proceed to septic shock, which has recently been classified as "a subset of septic shock.", sepsis can present as or progress to septic shock, recently redefined as: "a subset of sepsis in which particularly profound circulatory, cellular and metabolic abnormalities are associated with a greater risk of mortality than with sepsis alone." (Singer et al., 2016). Maternal sepsis is a life-threatening condition defined as an organ dysfunction caused by an infection during pregnancy.

Comment [I A5]: by previous surgical operations

Comment [I A6]: Delete

Comment [I A7]: And tissue necrosis might occur.
This is potentially fatal circumstance

Comment [I A8]: The other references in the current study are written in Vancouver style

Comment [I A9]: Replace the coma with full stop

Patient information: -63 years old male admitted in Acharya Vinoba Bhave Rural hospital sawangi meghe Wardha in MICU ward with chief complaints of altering sensorium.low urine output vomiting,loss of appetite, swelling of the abdomen crampy abdominal pain that comes and goes. urine analysis.

Comment [I A10]: Swelling of abdomen, cramp and frequently abdominal pain

Test Result: Consider a dipstick test in any patient who has suspected sepsis to help add weight to a suspected urinary source of infection. Chest x-ray. Test. Result. Test, cultures from multiple sources. Test. Result. Test, lumbar puncture. Test. Result. Test, computed tomography. Test Patients with severe sepsis are typically admitted to the hospital's intensive care unit (ICU) for treatment. The doctor will try to determine the cause and kind of infection by ordering blood and urine tests, as well as X-rays or CT scans, before prescribing medications to the patient

The primary concern and symptoms: -If left untreated, a bowel blockage, whether partial or complete, can lead to serious and life-threatening complications. The trapped air, liquids, and food can cause the intestine to swell. The intestine may become less able to absorb fluid as a result of the swelling, low urine output vomiting, loss of appetite.

Medical family and psychosocial history: -patient had a medical history of small bowel intimation with sepsisfor 1 month. She took treatment for that but not cure. She belongs to a jointfamily. All family members are healthy except the patient. The patient looks anxious, depressed and confused.

Relevant past intervention and outcomes: -History of small bowel intimation with sepsis before 1month and for that she was admitted for 15 days in hospital she took treatment for that. And her outcome was good.

Physical examination and clinical findings: -Abdominal distension (common in distal blockages), hyperactive bowel sounds (early), or hypoactive bowel sounds (late) are all physical examination findings (late). Strangulation is often accompanied by fever, tachycardia, and peritoneal symptoms. Nausea/vomiting (60-80%): Vomitus is frequently bilious. Constipation/failure to pass gas (80-90 percent): SBO is usually discovered later in life. Distention in the abdomen (60 percent) Fever and tachycardia are late symptoms that may be related to strangulation. Height is 150 cm and weight is 50 kg.RBC is normal, Hb is normal 11.2, platelets count is Low 1.19WBC is normal 2600cummm.

Timeline: - 1 month ago he was admitted to the hospital for 15 days for the treatment of sepsis. The medicine of choice inj. hydrocortisone, inj. Neomol, inj. levipril.

Diagnostic Assessment: -Sepsis can be difficult to diagnose. High or low body temperature, a quick heart rate and respiration rate, as well as possible or known infection, are all diagnostic criteria, Non-Laboratory Examinations, ECG - used to assess cardiac rhythm and damage, X-

Comment [I A11]: Low urine output, vomiting and anorexia might occur.

Comment [I A12]: Sepsis for 1 month

Comment [I A13]: The patient is male or femal

Comment [I A14]: Not clear

Comment [I A15]: The patient is male or female

Comment [I A16]: The patient is male or femal

Comment [I A17]: with

Comment [I A18]: Wrong

Comment [I A19]: Hydrocortisone is clear but the other drugs are not

ray. CT scan (computed tomography) MRI (Magnetic Resonance Imaging) (magnetic resonance imaging) Ultrasound.

Comment [I A20]: Delete

Therapeutic Interventions: -The patient was given Hydrocort 50 mg OD, inj Neomol 100 ml stat, inj levipril 500 mg twice a day, and inj Pantop 40 mg once a day for medical care.

Follow up: - patient condition was improved. Important diagnostic and other test results that need to be followed up on preventing the progression of the disease and trying to reserve any signs and symptoms that have appeared, Doctor advised follow-up after 10 days.

Discussion: -Lucius Hotchkiss introduced three cases of mechanical small bowel obstruction following acute appendicitis into the medical literature in 1901 with these words: "Acute appendicitis, with its coincident peritonitis of various degrees of severity, is probably a much more common cause of acute intestinal obstruction than is generally known." He stressed mechanical small bowel blockage over any other type of obstruction. Many cases of appendicitis aggravated by intestinal blockage have been documented since then. According to the literature we studied, intestinal obstruction caused by acute appendicitis is divided into two subtypes: functional or paralytic obstruction and mechanical obstruction.

Functional intestinal obstruction can be caused by either (a) inflammation, which is the most common type, and is caused by the spread of inflammatory exudates and mediators into adjacent structures like the ileum and cecum [3]; or (b) ischemia, which is caused by thrombosis of the ileocolic artery branches, resulting in gangrene of the terminal ileum and loss of function, and is the rarest type [4]. Mechanical bowel obstruction can be categorized into two types: (a) open loop, which is caused by an inflammatory process in the appendix, such as an abscess or an appendicular mass [5]; and (b) closed-loop, which is caused by an appendiceal tourniquet (AT).

AT is more common in men than in women, which can be explained by their higher pain threshold, which allows for repeated outbreaks of appendix inflammation with additional wrapping and obstruction of the small bowel [1, 3].The clinical manifestation of this illness can be classified as follows, according to Bhandari and Mohandas (2009) [3]. The most common symptoms of appendicitis Predominant features of acute intestinal obstruction, while on evaluation/laparotomy found to have appendicitis as the cause. In this group, a history of appendicitis may or may not be apparent. We observed that the picture of intestinal obstruction dominates in our case scenario and for a majority of patients with AT as well. Therefore, clinical examination is usually not typical for appendicitis, as only physical findings of intestinal

obstruction are evident, while right iliac tenderness is only evident in a few cases and is usually attributed to small bowel ischemia [3, 6, 7, 9, 10].

The results of the testing revealed normal potassium and sodium levels, as well as an elevated serum creatinine level. Although it has been reported to be increased in some series and was mostly related to small bowel ischemia [3, 6, 10], our investigation demonstrated a leukocyte count to be within the normal range. As a result, leukocytosis is not a reliable predictor of acute appendicitis caused by mechanical obstruction. A non-contrast abdomen/pelvic CT scan and a plain erect abdominal X-ray were used in this study. The simple erect abdominal X-ray revealed air-fluid levels and no symptoms of appendicitis, which was similar to the earlier series. Due to high preoperative creatinine levels, we did a non-contrast CT scan of our patient's belly and pelvis rather than a contrast CT scan. A CT scan was able to detect evidence of mechanical obstruction in this investigation, but it was unable to determine the exact reason for obstruction. In other studies, using a contrast-enhanced CT scan to demonstrate blockage, its definitive origin, and the presence of intestinal ischemia was highly useful [3, 7, 9]. Patients in the majority of studies underwent exploratory laparotomy with diagnostic and/or therapeutic goals. In almost every case, an inflamed appendix wrapped around the terminal ileum was discovered intraoperatively. Due to delayed presentation, the accompanying ileal loop was gangrenous in the majority of cases, necessitating appendectomy and small intestinal resection as a definitive treatment [1, 9].

Comment [I A21]: Some cases

Comment [I A22]: caese

Comment [I A23]: abdomen

The bowel was determined to be viable intraoperatively in this case, as it has been in a few series, and this could be attributed to early presentations of cases seeking therapies and/or early interventions. In such cases, a simple appendectomy was proven to be a sufficient treatment [10, 11]. Except for one case that was managed, laparotomy was the most prevalent strategy employed in almost all cases. Postoperative infection caused one death [13], but postoperative complications of AT are usually not life-threatening and can be handled conservatively, as in our case with the paralytic ileus. Wound infection and complications related to comorbidities have also been described in other cases [1, 7].

Conclusion: -There is little research on how to diagnose and treat elderly patients with small bowel obstruction. According to the limited evidence available, elderly individuals have a higher risk of complications and mortality and may benefit from earlier surgical intervention. Starting treatment in general and delivering surgery specifically, it is critical to consider patients' wishes. It is critical to consider patients' preferences when beginning treatment in general and offering surgery in particular, because an operation can have a major impact on quality of life. From the

beginning, and preferably in the ED, an assessment of frailty and a thorough geriatric approach to the elderly with small intestinal obstruction with multidisciplinary specialized care is essential. More research is needed.

Comment [I A24]: Not clear

References

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Comment [I A25]: The reference list is incomplete and does not matching the references numbers mentioned in the context