
CASE REPORT

Acute gangrenous appendicitis presenting as acute intestinal obstruction

Amal Gamdi, Sheikh Muddasir, Mahmoud Tolba, Saleem Abdul Sattar Khan

Abstract:

Acute appendicitis is the most common surgical emergency, the diagnosis is often missed, when acute appendicitis present with features of acute intestinal obstruction. The diagnosis of acute appendicitis creates a diagnostic dilemma if it presents with history of abdominal pain, vomiting and abdominal distension.

On examination patients present with distended abdomen with tenderness all around. We should have high index of suspicion to diagnose acute appendicitis when it present with features of intestinal obstruction.

We present a case of a 53 years old male who has known history of type-II Diabetes mellitus. He presented to King Abdullah Hospital, Bisha with history of abdominal pain, abdominal distension, vomiting and constipation since last 2 days.

His investigation shows (RBS 350, pH was 7.2, HCO₃ was 11 and lactate was 2.6). His Diabetic Ketoacidosis treated by DKA protocol, His X-ray abdomen suggestive of dilated bowel loops, CT scan with oral gastrograffin contrast suggestive of small bowel obstruction.

Patient underwent laparotomy and the findings were, acute suppurative appendicitis with small bowel obstruction. Appendectomy done and small bowel deflated. Patient was shifted to ICU for 2 days and shifted to surgical ward on 3rd post-operative day.

Keywords: Acute appendicitis, abdominal distention, vomiting, constipation, intestinal obstruction

Introduction:

Acute appendicitis is the most common surgical emergency, the diagnosis is often overlooked, when acute appendicitis present with features of acute intestinal obstruction. The diagnosis of acute appendicitis creates a diagnostic dilemma if it presents with sign and symptoms of acute intestinal obstruction.

The Intestinal obstruction is a common surgical emergency. The most common causes of intestinal obstruction are adhesions, band formation, Meckles diverticulitis obstructed internal and external hernias and intestinal neoplasia.

The acute appendicitis can rarely present with features of acute intestinal obstruction.

Case Report:

We present a case of a 53 years old male who has known history of type-II Diabetes mellitus. He presented to King Abdullah Hospital, Bisha on 7th of January 2019 with history of abdominal pain, abdominal distension, vomiting and constipation since last 2-days. His investigation shows RBS 350, Hb 12.3gm, WBC 13.4. His arterial blood gases shows pH was 7.2, HCO₃ was 11 and lactate was 2.6.

His Diabetic Ketoacidosis treated by DKA protocol, His X-ray abdomen suggestive of dilated bowel loops, CT scan with contrast suggestive of small bowel obstruction.

Patient underwent laparotomy and the findings

Received

Date: 7th February, 2019

Accepted

Date: 17th November, 2019

King Abdullah Hospital, Bisha

A Gamdi
S Muddasir
M Tolba
SAS Khan

Correspondence:

Dr Amal Gamdi,
King Abdullah Hospital,
Bisha
Cell No: 00966562804020
email: aml.algamdi93@gmail.com



Figure 1: x-ray abdomen erect posture showing multiple fluid levels

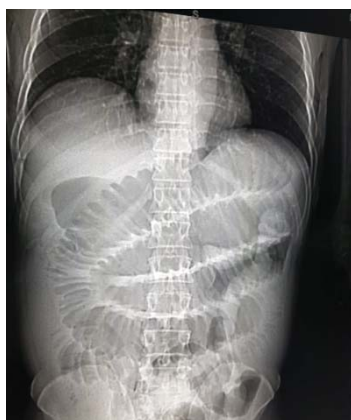


Figure 2: X-ray abdomen supine posture showing multiple dilated bowel loops.

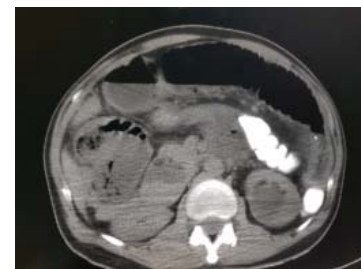


Figure 3: CT abdomen with gastrografin oral contrast showing multiple dilated bowel loops.

were acute suppurative appendicitis with small bowel obstruction. Appendectomy done and small bowel deflated. Patient was shifted to ICU for 2-days and shifted to surgical ward on 3rd post-operative day.

Discussion:

Acute Appendicitis as a case of small bowel obstruction is extremely rare. Intestinal obstruction is a common case of Acute Abdomen and requires immediate intervention.¹ Acute appendicitis is usually accompanied by varying degree of intestinal obstruction due to intestinal ileus.

Adhesive ileus which is caused by adhesion during acute appendicitis is also quite well known.^{2,3}

Appendicitis as a cause of bowel obstruction was first described in the literature in 1901 by Lucius Hotchkins.

Assenza et al⁴ mentioned mechanical bowel obstruction due to Acute Appendicitis is very rare. Similarly Gupta S et al,⁵ also claims that acute appendicitis is a rare cause of intestinal obstruction.

Haris S et al,⁶ first brought to wider notice that the presentation of acute appendicitis as small bowel obstruction and pointed out that very often the differentiation between dynamic ileus and true mechanical obstruction is difficult to elicit clinically.

Haris S et al,⁶ also claimed that the most common cause of mechanical bowel obstruction as acute appendix that lay across the ileum and held down by adhesive bowel.

The first case of bowel obstruction due to appendiceal strangulation or constriction was described in detail by Namov.⁷ Very few cases were published till, in 1963, Namov presented appendiceal strangulation as a case of intestinal obstruction.

Mechanical obstruction with or without strangulation results from the inflamed appendix pinching tightly around loops of the bowel or adhesion of the distal end of the appendix with loops of the small bowel, caecum or retro-peritoneum.

The adhesion is due to severe acute appendicitis may form band through which small bowel herniate with or without strangulation. Bose et al,⁹ reported two cases of acute appendicitis presenting with strangulated small bowel.

Appendicitis can cause by an appendiceal Mucocele and Mourad et al,¹⁰ report such a case with presenting with intestinal obstruction.

To diagnose such a case history and clinical examination are very useful. X-ray abdomen is erect and supine position plays an important role. CT abdomen with oral contrast is diagnostic for acute appendicitis with acute intestinal obstruction.

tion.

Zissin et al,¹¹ mentioned his unusual case of appendicitis presenting with intestinal obstruction pre-operatively by careful analysis of CT abdomen with oral contrast.

Conclusion:

We conclude that mechanical bowel obstruction due to acutely inflamed appendix is extremely rare but it is potentially life-threatening complication if not dealt urgently.

Clinical sign and symptoms are variable. Plain x-ray abdomen plays an important role in diagnosing small bowel obstruction, computerized tomography with oral contrast is the investigation which has high sensitivity and specificity. These patient requires urgent surgical intervention.

Conflict of interest: None

Funding source: None

Role and contribution of authors:

Dr Amal Gamdi, collected the data, references and did the initial writeup.

Dr Sheikh Muddasir, collected the data, references critically went through the article and gave useful advices.

Dr Mehmoud Tolba, collected the data, references and helped in writing the article.

Dr Saleem Abdul Sattar Khan, critically went through the article and made final changes.

References:

1. Ondrej Maly, Girl paral et al, appendicitis as a rare cause of Mechanical small obstruction. A literature review of case report, 29, 2016 180, 184
2. G. Chris et al, Mechanical small bowel obstruction due to an inflamed appendix wrapping around ileum. 26(2005) 261-266.
3. L Bhandari, P Mohandas et al, World J. Emerg. Surg, 4(2009) 34, 10-1186/1749-7922-4, Cross Ref Google scholar.
4. Assenza M, Ricci G et al, Mechanical bowel obstruction due to inflamed appendix wrapping around last loop of ileum. II Giornal D, Chirugia 2005, 26(6-7) 261-266
5. Gupta S, Vaidya M et al, Mechanical small obstruction caused by acute appendicitis. The American Surgeon 1969, 164(1)157,161
6. Haris S, Redolf L et al, Mechanical small bowel obstruction due to acute appendicitis. Annals of Surgery 1966:164(1)157-161
7. ID Nomov et al, 2-cases of strangulation of the small intestine in the loop of vermiform appendix. Khirurgiia Sofia, 39(1963) 130-132.
8. C Chatterji, S Dash, S Gupta et al, Appendiceal knotting causing small bowel obstruction. J-Res- Med. Sci 19(2014) 1016-1017.
9. Bose S, Talwar B et al, appendicitis causing acute small intestinal obstruction with strangulation. The Australian and New Zealand journal of surgery 1973: 43(1) 56-57.
10. Mourad FH, Hussein M et al, Intestinal obstruction secondary mucocele of appendix, Digestive Diseases and Sciences 1999 44(8)1594-1599.
11. Zissen R, Kot E et al, Acute appendicitis with intestinal malrotation presenting with partial small bowel obstruction diagnosed on C.T. The British Journal of Radiology 2000.73 557-559.