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Case Report

A rare cause of mechanical obstruction: case report of cryptoorchidsm in adult

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ABSTRACT

Small bowel obstruction is common complication following abdominal surgery and other causes. However, cryptorchidism leading to intestinal obstruction with no previous abdominal surgery is extremely rare. We report a case of 22 year old man presented with small bowel intestinal obstruction due to cryptorchidism. Mechanical obstruction due to cryptorchidism were either from direct adhesion to gut loops or internal herniation or as complication of malignant transformation (torsion, mass effect, rupture or haemorrhage). It is important to keep in mind that undescended intra-abdominal testes may lead to acute life-threatening complication which should be considered in patient presented with acute abdomen and an empty scrotum. It is important to keep in mind that undescended intra-abdominal testes may lead to acute life-threatening complication which should be considered in patient presented with acute abdomen and an empty scrotum.

Keywords: Cryptoorchidism, Small bowel obstruction, Mechanical obstruction, Adult

INTRODUCTION

The acute abdomen has many aetiologies and frequently encountered in emergency surgical units. Approximately 20% of surgical admissions for acute abdomen are intestinal obstruction. Small bowel obstruction which described as interruption of normal flow of intestinal content in the small bowel and is a common complication following intraabdominal surgery. Although intraabdominal adhesion may be the main cause of small bowel obstruction, causes other than history of previous abdominal surgery such as malignancies or hernias should be considered. Cryptorchidism can easily be detected and surgically treated in a younger patient and is not usually suspected as a cause of small bowel obstruction in an adult, because of its rarity.[1]

Herein we report a case of small bowel obstruction caused by cryptorchidism in an adult with no history of abdominal surgery.

CASE REPORT

22 years old man, with no known previous co-morbidity presented to emergency department with complaining of abdominal pain, abdominal distension, nausea and vomiting. On physical examination, the abdomen was distended with generalised tenderness. The right scrotum was empty. Abdominal x-ray showed generalised dilatation of small bowel. He had no past surgical operation. He was not married and of poor socioeconomic status. He was brought in for emergency laparotomy. On table, small bowel was grossly dilated with collapsed large bowel, a segment of gangrenous small bowel, 15 cm from ileocecal junction was entrapped in right inguinal ring with the right testes which appeared atrophic seen within. 60 cm from the ileocecal junction, there was an incidental finding of an uncomplicated wide base Meckel's diverticulum seen. Gangrenous small bowel was resected and hand sewn end to end anastomosis, wedge resection of Meckel's diverticulum with primary anastomosis was done and right orchidectomy done for the atrophic undescended right

testes. Histopathological examination of the right testes was consistent with atrophic undescended testes with no features of malignancy found, gangrenous small bowel that was resected was in keeping with haemorrhagic necrosis with micro perforation consistent with strangulated hernia and the Meckel's diverticulum that was resected showed features of gastric heteropia. Patient had a good recovery post-operative and was discharged well after 6 days.

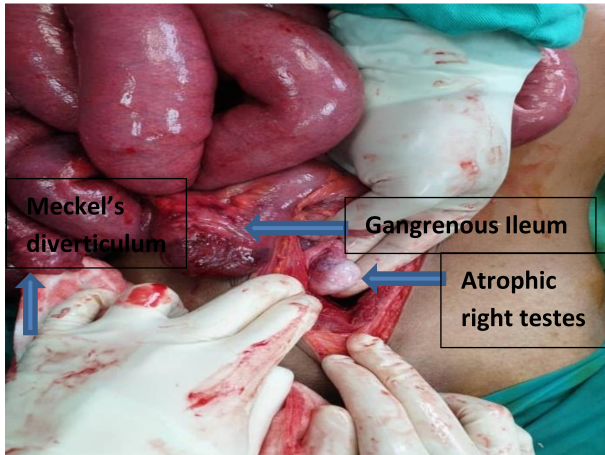

Figure 1: Intraoperative findings of undescended, atrophic testes causing small bowel obstruction leading to gangrenous ileum. Incidental finding of wide base, non-inflamed Meckel's diverticulum.

DISCUSSION

Failure of testes to reside in its normal position in the scrotum after birth will lead to increased risk of infertility or malignancy. Other complications that might occur are torsion and trauma, in addition to psychological impact of an absent testes. Intestinal obstruction due to internal herniation is rare and reported in only about 1% of population. Intestinal obstruction usually occurs at paraduodenal area (50%), but they may also occur at paricecal, transmesentric, intersigmoid and supravescical area.[1] Acute small bowel obstruction in the absence of previous surgery or external henia is suggestive of internal herniation, malignancies, Crohns disease, strictures, diverticulitis, foreign bodies or congenital abnormalities should be looked for. Congenital abnormalities causing small bowel obstruction usually become evident during childhood, however, they sometimes elude diagnosis and are detected for the first time in adult patients presenting with abdominal symptoms.

Cryptorchidism usually diagnosed following a trauma, torsion, malignancy, infertility or psychological impact. Although cryptorchidism is not a common cause of mechanical obstruction to either large or small bowel, cryptorchidism has been reported in few literatures in this regard. Previous cases reported mechanical obstruction due to cryptorchidism were either from direct adhesion to gut loops or internal herniation or as complication of malignant transformation (torsion, mass effect, rupture or haemorrhage). Only two case reports chronicle a non-malignant aetiology. Kim et al had reported a case of small bowel obstruction due to direct adhesion of cryptorchid testis to distal ileum in a 67-year-old man. In another case, Bassiouny et al had reported of small bowel obstruction in a 2-year-old boy from internal herniation, formed by adhesion of the gubernaculum of the right cryptorchid testis to the terminal small bowel loop. Another plausible mechanism of mechanical obstruction could be from secondary volvulus. When the gubernacular attachments from undescended testis acting as a fulcrum against the fixed duodeno-jejunal junction, the rotated small gut could have compromised its vascularity and had developed peritonitis from strangulation.

CONCLUSION

This case emphasizes on the importance of orchidectomy for cryptorchidism presented after childhood age who still had not received orchidopexy to prevent complications. It is important to keep in mind that undescended intra-abdominal testes may lead to acute life-threatening complication which should be considered in patient presented with acute abdomen and an empty scrotum. It is important to keep an open mind in dealing with patients of intestinal obstruction from such atypical causes.

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