An Unexpected Cause for Small Bowel Obstruction: Meckel's Diverticulum and Pneumatosis Intestinalis in an Elderly Male

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Introduction:

Meckel's Diverticulum is a commonly encountered gastrointestinal (GI) tract anomaly in early childhood, often presenting with painless lower GI bleeding or unexpectedly discovered during abdominal surgery.[1] If the diverticulum exists, it will persist unbeknownst to the patient, however symptoms may arise as a result of its presence on rare occasion.[1] The case report aims to illustrate two main items: the consideration of Meckel's diverticulum as a possible cause for SBO in an unlikely population such as the elderly and acknowledging the incongruence of worrisome radiographic findings in the absence of ischemia intraoperatively.

Case Presentation:

This is the case of a 70-year-old male with hypertension, hyperlipidemia, pre-diabetes, chronic pain with suboxone dependance, and no prior surgical history who presented with altered mental status and diffuse abdominal pain for three days. The patient was notably tachycardic, hypertensive and had an elevated lactic acid of 5.4 mmol/L. Computed tomography (CT) revealed a small bowel obstruction (SBO) with a transition point seen in the distal ileum and associated pneumatosis intestinalis (PI). (Figure 1) Given the concern for bowel ischemia and the patient's worsening clinical status and alarming radiographic evidence, this patient was promptly taken to the operating room where he underwent a diagnostic laparoscopy which was subsequently converted to an open laparotomy due to severely distended bowel loops. The procedure revealed a 5.0 x 5.0 cm wide-mouthed Meckel's diverticulum, later confirmed with pathology, located two feet from the ileocecal valve and impacted with stool (Figure 2, 3). Of note, no indicators of bowel ischemia were encountered when the bowel was thoroughly examined. The patient underwent a Meckel's diverticulectomy with an end-to-end primary anastomosis complicated by a course of prolonged post-operative ileus.

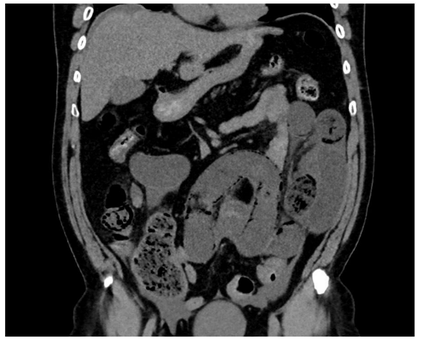

Figure 1.

Figures 2 & 3.

Discussion:

Meckel's diverticulum is the most common congenital malformation of the gastrointestinal tract, commonly discovered in patients undergoing diverticulectomies or abdominal exploratory surgeries.[1] Less than 1% of patients 70-years-old and above present with complications of Meckel's diverticulum.[2] Diagnosis is best performed with technetium-99m study and PI is an unusual radiographic finding on CT. Treatment is either surgical resection or observation. If symptomatic, a simple diverticulectomy or segmental resection is performed. Diverticulectomy is performed in non-perforated or non-bleeding diverticula with narrow bases[1]. Segmental resection is performed if the small bowel lumen is in jeopardy of narrowing, palpable base abnormalities, neoplasm and for diverticula over 2 cm.[1]
Intra-operatively there was no indication of bowel ischemia. Benign PI has been seen without bowel ischemia but may still indicate an issue with bowel vascularization.[3]

Conclusion:

Meckel's diverticulum should be considered as a potential cause for SBO in the elderly. In addition, radiographic findings, while helpful, should not be a distractor to obtaining a full history and physical examination of the patient and careful consideration should be made to weigh options that will determine appropriate management.

References:

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