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Triple Presentation of Mesentric Lymphadenitis, Appendicitis, and Inflamed Meckel's Diverticulum: A Case Report

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ABSTRACT

An array of surgical and medical conditions, such as Meckel's diverticulitis, mesenteric adenitis, right ureteric colic, ectopic pregnancy, ruptured ovarian cysts, intussusception, acute cholecystitis, perforated peptic ulcer, intestinal obstruction, gastroenteritis, terminal ileitis, and pneumonia, share the same clinical presentation as appendicitis. Since Meckel's diverticulitis and acute appendicitis are typically difficult to distinguish clinically from one another, this condition is typically asymptomatic and only identified accidentally during surgery in most clinical scenarios. On the other hand, with an incidence of 8.6% in men and 6.7% in women, acute appendicitis is one of the most prevalent presentations in a surgical emergency. Rarely described in the literature is the triple presentation of acute appendicitis, Meckel's diverticulum, and Mesenteric adenitis. We recommend careful evaluation of mesentric adenitis or Meckel's diverticulum in the surgical therapy of acute appendicitis, especially if the condition of the appendix is normal or only catarrhal inflamed.

INTRODUCTION

Mesenteric adenitis, an inflammatory condition of mesenteric lymph nodes that is characterized by right lower quadrant pain[1]. The primary manifestation of mesenteric lymphadenitis, also known as mesenteric adenitis, is a viral gastrointestinal infection. The condition is most prevalent in children, even though it is occasionally seen in adults as well. Acute appendicitis is when the appendix inflames and fills with pus, appendicitis results. The appendix, a finger-shaped pouch that emerges from your colon on the bottom right side of your abdomen, becomes inflamed when you have appendicitis. Lower right abdominal pain is the primary symptom of appendicitis.

On the other hand Meckel's diverticulum is the most common congenital anomaly of the gastro intestinal system.[2] Abdominal discomfort is the same symptom in Meckel's diverticulum, acute appendicitis, and mesenteric adenitis, hence they can all be confused with related conditions. Meckel's diverticulum is difficult to figure out preoperatively, and it tends to be detected intraoperatively. This report presents a case of Acute Appendicitis with symptoms and signs of Meckel diverticulitis.

CASE REPORT

A 12 years old male patient was admitted to the General Surgery department in a tertiary care hospital presenting with complaints of abdominal pain and vomiting. He had no medical and medication history. The patient was conscious and oriented with vitals stable. On physical examination, a rebounded tenderness was noted. The plain CT scan of the abdomen and pelvis revealed finding that were suggestive of mesenteric lymphadenitis& the impression of the USG abdomen and pelvis showed probe tenderness in right iliac fossa region and mild free fluid noted in RIF region but appendix was not visualized. Despite the fact of rebounded tenderness, patient's CRP was raised with the rest being normal. Hence the case was diagnosed as infected Meckel's diverticulum with content inflamed appendix.

The patient was initially treated conservatively. As the abdomen pain persisted and there was no improvement in patient's condition surgery procedure was done on the second day. After anesthesia clearance patient underwent laparoscopy converted to laparotomy in addition to Meckel's diverticulectomy and appendectomy for incidentally discovered appendicitis under GA. During the procedure inflamed Meckel's diverticulum was removed. (Figure 1)

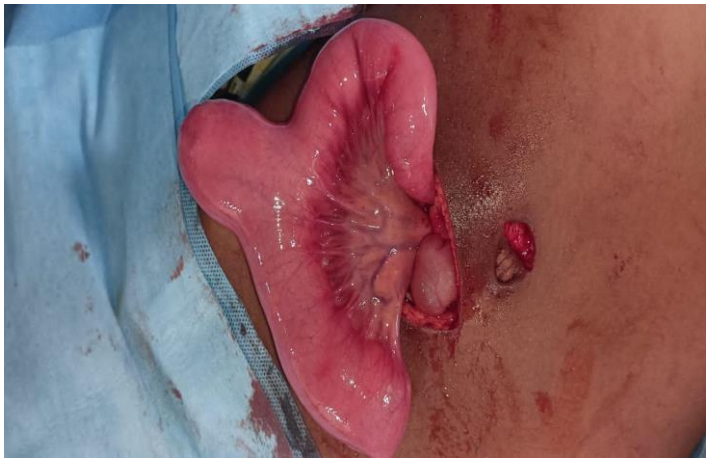

Figure 1

The initial treatment on day 1 was done with ink. Once (Ceftriaxone, 1gm, BD), InjPantop (Pantoprazole, 40mg, OD), Inf Pactiv (Paracetamol, 750mg, BD) till day 4 the same medications were continued. On the 5th day Inf Pactiv was changed to Tab Dolo (Acetaminophen, 500mg, 1-1-1). Inaddition to that Tab Chymoral forte (Trypsin+Chymotripsin, 1-0-1)wasalso given. Patient was better at the time of discharge along with the following medications: Cap Yogut (Pre & Probiotics, OD, 10 days), Tab Pantop (Pantoprazole, 40mg, 1-0-0, 5 days), Tab Chymoral forte (Trypsin chymotrypsin, 10000U, 1-0-1, 5 days), Tab Immunace extra (Betacarotene + Citrus Biofllavonoids +L-carnitine + L-Cystine + Vitamin D3 + Pyridoxine + Folic acid + Niacinamide + Vitamin B12 + essential minerals, OD, 5 days), Enzoheal ointment (Mupirocin + Bromelian, L/A).

DISCUSSION

Meckel's diverticulum, the most prevalent gastrointestinal abnormality, is a remnant of the prenatal vitelline duct that did not retreat during the fifth and seventh week of foetus life. Johann Friedrick Meckel originally identified Meckel's diverticulum in 1809.[3] Known also as mesenteric adenitis, mesenteric lymphadenitis is a viral gastrointestinal infection that causes pain in the right lower quadrant as its main symptom. When the appendix becomes inflamed and filled with pus, appendicitis occurs. When having appendicitis, the appendix, a finger-shaped pouch that exits from colon on the bottom right side of belly, becomes inflamed. Appendicitis' main symptom is lower right abdomen discomfort. Meckel's diverticulitis (MD) is still challenging to preoperatively identify. Meckel's diverticulitis (MD) is still challenging to identify preoperatively, and most instances are misdiagnosed as acute

appendicitis, which is more frequent in older individuals and accounts for 12.7–53.3% of all symptomatic cases[4].

A case report with the simultaneous presentation of acute appendicitis and perforated Meckel's diverticulitis was documented by Senocak et al. Even while the preoperative clinical examination and imaging investigations pointed to an appendicitis diagnosis in the classic sense, the presence of a significant amount of pus inside the abdomen raises the possibility of another pathology.[5] Jumbi et al. also described an infant who simultaneously presented with acute appendicitis and perforated Meckel's diverticulitis. Clinically, it initially showed signs of intestinal blockage before becoming worsened by such a perforation.[6] Complicated or symptomatic Diverticulectomy or segmental resection are the two procedures used to remove Meckel's diverticulums, however controversy surrounds the removal of incidentally identified asymptomatic Meckel's.[7]According to Ueberrueck et al., the degree of appendix inflammation should be taken into consideration while determining whether to remove asymptomatic Meckel's. His retrospective investigation found that when normal Meckel's is removed along with appendicular problems such necrosis or perforation, the postoperative morbidity rises.[8]

Acute appendicitis and Meckel's diverticulum frequently occur together, as is widely documented in the literature; however, when we searched for similar case reports describing this triple presentation, we were unable to locate any. As a result, we are helping doctors understand that even though there is no connection between appendicitis, Meckel's diverticulum, or Mesenteric adenitis, each of them can present alone and occur in one patient, which presents a significant challenge in terms of diagnosis, treatment, and management.

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Nil

CONFLICTS OF INTEREST

None

CONCLUSION

Many surgical and medical conditions like Mesenteric adenitis, Meckel’s diverticulum, Acute appendicitis, Right ureteric colic, Intestinal obstruction, Gastroenteritis share the same

clinical presentation and hence from this case report it is evident that in the operative management of Meckel's diverticulum with mesenteric lymphadenitis, we recommend proper assessment of acute appendicitis. We also recommend the resection of incidentally discovered appendicitis in case of unconfirmed or overlap diagnosis of Meckel's diverticulum.

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