ORIGINAL RESEARCH

An Observational Study of Patients Presenting with Caecal Diverticulitis in a Tertiary Care Hospital

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ABSTRACT

Background: Since solitary caecal diverticulum is a rare condition, it is challenging to detect outside of preoperatively. A rare cause of acute abdomen, caecal diverticulitis typically manifests similarly to acute appendicitis. Treatment for this clinical condition is still debatable.

Methods: In this observational study we report three cases of caecal diverticulitis. Three middle aged (27-67yrs)malepresented with right sided lower abdomen pain mimicking appendicitis.

Results: One of them diagnosed preoperatively and other two patients were diagnosed in operation room (OR). Initial medical treatment failed in first case and subsequently was managed via Laparoscopic Right Hemicolectomy and Ileo-Ascending anastomosis done. The second patient was detected during laparoscopic appendicectomy, where appendectomy and diverticulectomy with primary repair was done. Thirdcase was detectedwhile exploring the abdomen for suspected appendicitis. The patient had undergone refashioning of margin and primary repair of caecum.

Conclusion : Caecal diverticulitis is a rare clinical entity often encountered during operative intervention for acute appendicitis. High index of suspicion and modern imaging may diagnose it preoperatively. Management is diverse and includes both medical and surgical therapy.

Keywords: Caecal Diverticulitis, Solitary, Ascending Anastomosis.

INTRODUCTION

Cecal diverticula are a rare clinical entity among patients with colonic diverticula in Western nations. Cecal diverticula are said to make up 3.6% of all colonic diverticula. Cecal diverticulitis is thus an uncommon clinical entity in Western nations. Ninety-nine percent of caecal diverticulitis patients complain of pain in the right lower quadrant. They frequently mimic severe appendicitis.Clinical diagnosis of caecal diverticulitis is often difficult. We present a case series of three case of caecal diverticulitis one diagnosed preoperatively and managed by surgical therapy and others two diagnosed intraoperatively and managed surgically.

METHODS

In this observational study we report three cases of caecal diverticulitis. Three middle aged (27- 67yrs.) male presented with right sided lower abdomen pain mimicking appendicitis

RESULTS

Case 1: A 47year old male presented with right lower abdominal pain, vomiting and mild fever. On examination, he had right iliac fossa was tender with positive rebound tenderness. Total Leucocyte Count [12,000] and Neutrophil count (82%). On USG caecal wall was thickened. A Contrast Enhanced Computed Tomography (CECT) Scan was done and found to be

Caecal Diverticular Disease with faecolith(Figure1& 2). Initially he was treated with intravenous antibiotics and other supportive drugs but failed to show any improvement. Laparoscopic limited right hemicolectomy with ileo-ascending anastomosis was performed(Figure3). The patient was discharged on post op Day 4 with uneventful post-op events.

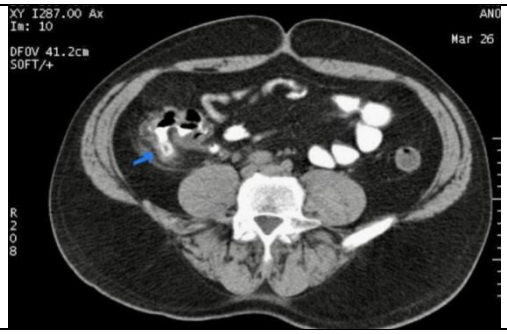

Figure 1 CECT abdomen showing caecal diverticulum with faecolith

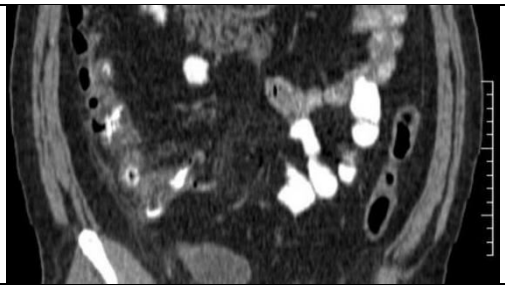

Figure 2.CECT abdomen showing Caecal diverticulitis

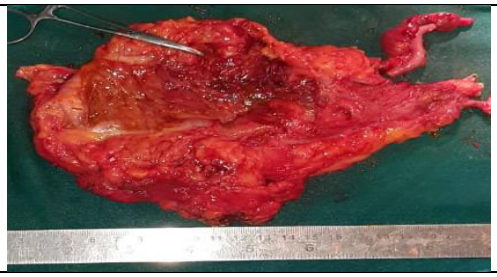

Figure 3: Operative specimen of limited right hemicolectomy cut open indicating diverticula

Case 2: Sixty-seven years male suddenly developed pain abdomen at right lower quadrant associated with nausea and vomiting and mild fever. Clinically appeared to be a case ofacute appendicitis. TLC raised. USG of whole abdomen was not suggestive of acute appendicitis. CECT abdomen also revealed acute appendicitis. He was planned for laparoscopic appendicectomy. On diagnostic laparoscopy appendix was grossly inflamed and close to the there was a caecaldiverticula which also looked inflamed (Figure4). Soboth appendix and diverticulum was removed.Caecal opening closed with 3-0 vicryl. Patient developed mild abdominal distention in the early post operative period which responded well to conservative management. He was discharged on post operative day

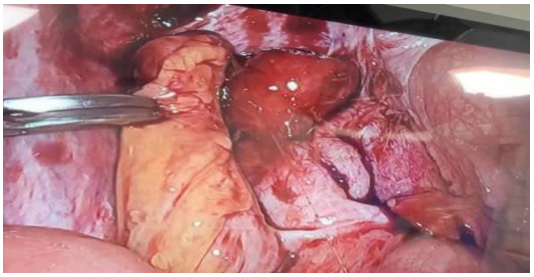

Figure 4: Laparoscopic picture showing acute appendicitis and caecal diverticulitis

Case3: Fortyfouryears male patient attended emergency with pain at right iliac fossa, vomiting, fever. Clinically appeared to be a case of appendicitis and supported by USG as well. But on exploration caecal diverticulitis with perforation present(Figure 5). He was diverticulectomy as well appendicectomy. Caecal margin was freshened and repaired with 2-0 Vicryl(Figure 6). Patient went well in post operative period except wound infection. Discharged on POD 4.

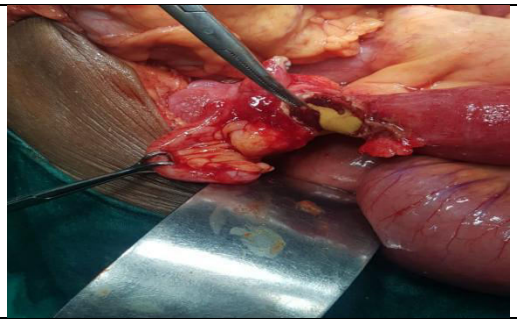

Figure 5: Gangrenous Caecal diverticulum during open appendicectomy

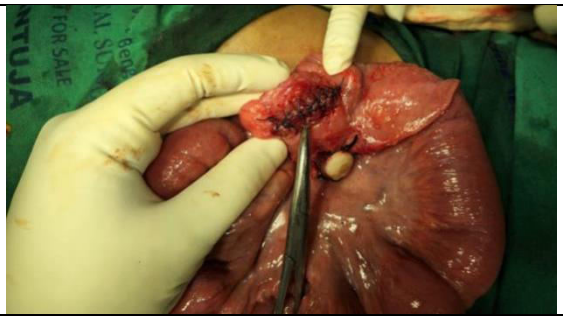

Figure 6: Caecal diverticula excised and repaired

DISCUSSION

Caecal diverticulitis is a rare disease in western countries and relatively more common in Asian countries.[1]Potier in 1912 first described the solitary caecal diverticula.[2] Caecal diverticula etiologically appeared to be congenital disease as these diverticula have all layers of caecal wall. They generally do not produce any symptoms. They may beinflamed leading abscess, perforation or bleeding.[3,4] When inflamed they produce symptoms mimicking acute appendicitis. Correct preoperative diagnosis of caecal diverticulitis is very difficult. At earlier series about two thirds of caecal diverticulitis were diagnosed at operation theatre.[5,6] With more uses of USG and CECT abdomen whenever required preoperative diagnosis of caecal diverticulitis increases very much. Sensitivity and specificity of USG for caecal diverticulitis have been shown 91.3% and 99.5% in one study having patient population of 934 with pain lower abdomen.[7] But it is always operator dependent. CECT of abdomen is the main tool for preoperative diagnosis of caecal diverticulitis. Itssensitivity and specificity in distinguishing acute appendicitis from caecal diverticulitis are both 98%.[8] Thickening of the colon wall,pericolonic inflammation, and extraluminal mass effect are the most common CT findings of caecal diverticulitis.[7 8] In uncomplicated caecal diverticulitis initial treatment approach is medical management followed by definitive surgical therapy in view of reccurences.[9] Different surgeries have been described from diverticulectomy to limited hemicolectomy depending on the extent of the disease.[10]It can be managed by laparoscopic diverticulectomy as well with similar outcome.[11,12] Some studies showed successful management of caecal diverticulitis as in left side diverticulitis.[13]

CONCLUSION

Solitary caecal diverticulitis is a rare disease. Usual diagnosis is intraoperative as it mimics clinically as acute appendicitis. Uses of USG and CECT abdomen with high clinical suspicion may detect this disease in preoperative phase. When diagnosed with confidence we can try medical management. Surgical treatment ranging from diverticulectomy to right hemicolectomy is applied when medical treatment fails or detected intraoperatively.

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