ledipasvir and sofosbuvir treatment for two weeks before developing AIH. Another report by Matsumoto et al. described an 81-year-old woman who developed AIH two months after receiving an elbasvir/grazoprevir combination, and she only recovered after stopping the antiviral therapy and starting prednisolone. Additionally, it is critical to assess the possibility of the AIH component returning in HCV-AIH patients, as other autoimmune diseases have been known to reappear following partial clinical recovery[5].

In summary, we have presented a case of HCV-AIH overlap that showed improvement after being treated with DAAs and achieving SVR. We followed-up this patient for one year, to monitor any recurrence of the autoimmune component or evidence of fibrosis, and she did not have any recurrence. Moreover, the study by Putra et al[4] showed histologic improvement in the absence of immunosuppressive therapy suggesting that the autoimmune component is likely a secondary phenomenon. Therefore, to avoid over treatment with immunosuppressive medications, we propose using the term 'HCV with autoimmune characteristics (HCV-AIH)' rather than an overlap syndrome.

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Diagnostic Dilemma in a Case of Large Abdominal Wall Abscess: An Unusual Presentation of Caecal Diverticulitis

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Colonic perforation is a potentially life-threatening complication. Aetiology of colonic perforation is multiple and can be due to trauma, malignancy, diverticulitis, obstruction and instrumentation. Diverticular perforation constitutes about 15% of gastrointestinal perforation[1]. Diverticulosis of the colon is asymptomatic in 85% of patients. Diverticulitis occurs only in 4 to 15% of patients with diverticular disease of colon. Diverticular perforation is a rare complication and 1 to 2% of patients with diverticulitis will have non-contained perforation resulting in peritonitis. We present a case of perforated caecal diverticulitis with complex abdominal wall abscess which masqueraded as ileocecal tuberculosis. This is a rare complication of caecal diverticulitis and it posed a significant diagnostic challenge.

Case Report

A 27-year-old male presented to us with abdominal pain, fever and swelling in the right lumbar region along with loss of appetite and loss of weight for the past 4 months. He had no comorbidities or addictions. He had history of appendicectomy done 4 years ago, the details of which were not available. On clinical examination, he was thinly built, malnourished, febrile with a tender swelling in right

lumbar region and a tender distended abdomen. His blood results revealed that he was anaemic (haemoglobin: 8.8g/dl) with low albumin (serum albumin: 2.8g/dl) due to his chronic illness.

He presented to us with a CT scan done else where which was reported as features in favour of inflammatory bowel disease with complex abscess. He underwent repeat CECT abdomen in our centre which revealed irregular intercommunicating peripherally enhancing abscess collection involving right posterolateral abdominal wall with a complex fistulous communication with the posterior wall of caecum (**Figure 1:** Right posterolateral complex abdominal wall abscess in CECT scan - yellow arrows). The caecum and ascending colon were elevated having significant wall thickening and enhancement with a possible radiological diagnosis in favour of ileocaecal tuberculosis.

He underwent emergency surgery and he had abscess in right loin with thickened, inflamed ascending colon and posterior caecal wall perforation (**Figure 2:** Abscess in the retrocecal region intraoperatively). Hence, a right hemicolectomy with end ileostomy was done. His post operative period was uneventful. The histopathological report came as diverticulosis with diverticulitis and inflamed, perforated caecal diverticulum (**Figure 3:** Perforation in the posterior wall of caecum, **Figure 4:** Microscopic image showing diverticulum in the colonic wall with transmural inflammation). His stoma was reversed after 8 weeks and he was doing well on 6 month follow up visit.

Discussion

In the western population left-sided diverticular disease accounts for up to 80 percentage of colonic diverticulosis. Right sided diverticular disease predominates among the people from Asian ethnic background and it accounts for up to 70 to 80% of colonic diverticulosis based on a recent review article[2]. Another study from Japan had concluded that caecal diverticulitis was noted to be more common in young males[3]. In another study by Kil Yong Lee et al from Korea, right sided diverticulitis occurred in young males predominantly.

The left colon is comparatively smaller in diameter and has increased intra luminal pressure which is the main pathophysiological factor involved in left sided diverticular disease. The right colon is wider and the stool also has a liquid consistency. Song et al had given a hypothesis that people with Asian ethnicity have increased incidence of right colon diverticulosis due to genetically weaker musculature of the right colon[4].

There are two types of cecal diverticula, congenital and acquired. Congenital cecal diverticulum is a solitary diverticulum from the anterior cecal wall. This occurs as an outpouching during the sixth week of embryonic development. It is considered as a true

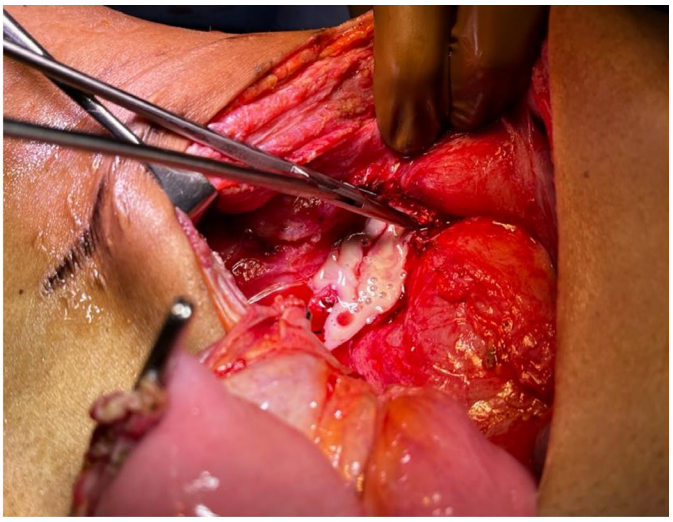

Figure 1: Abscess in the Retrocaecal region seen intraoperatively.

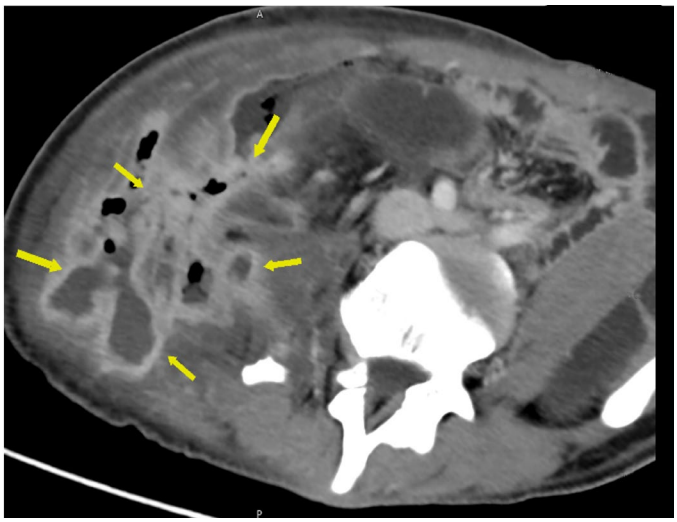

Figure 2: Right posterolateral complex multiloculated abdominal wall abscess in CECT scan (yellow arrows).

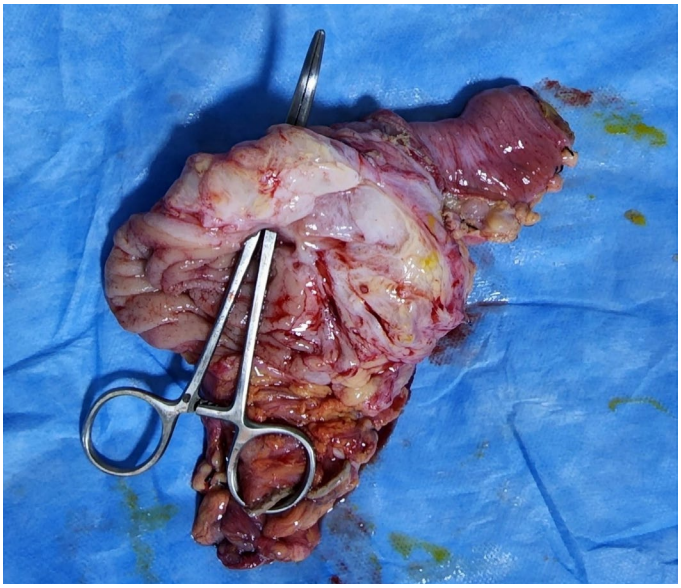

Figure 3: Perforation in the posterior wall of Caecum.

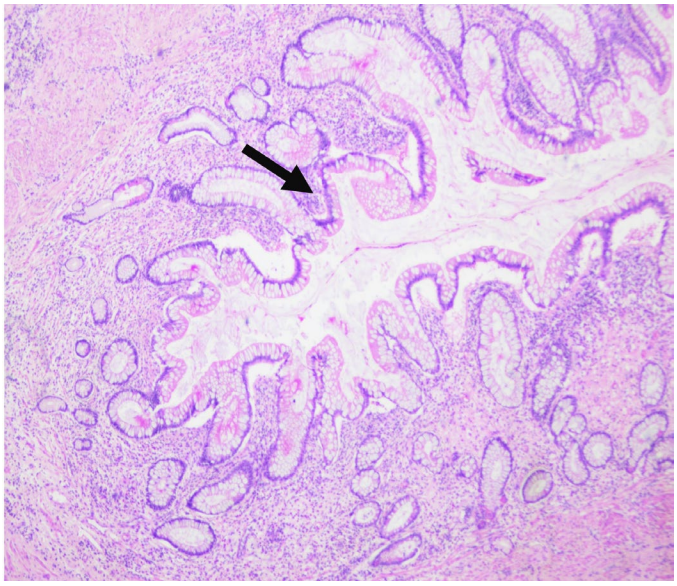

Figure 4: Microscopic image (H&E) showing diverticulum in the colonic wall with transmural inflammation.

diverticulum having all layers of the colonic wall. They are often asymptomatic. Acquired diverticula happens in adults and they are defined as mucosal outpouchings without muscularis propria.

Cecal diverticulitis presents with right lower quadrant pain in 99% of patients. The second common symptom seen in these patients is diarrhea. They are often misdiagnosed as acute appendicitis. In the era of clinical diagnosis when there was no good imaging modality, only six percentage of the patients had a preoperative diagnosis of cecal diverticulitis[5]. The diagnosis of cecal diverticulitis was made at laparotomy undertaken for suspected appendicitis.

Preoperative diagnosis of cecal diverticulitis is possible now a days with imaging. The ultrasound finding in cecal diverticulitis is hypo or anechoic mass formation protruding from cecal wall. But ultrasound has high interobserver variability and suboptimal view in obese patients. Contrast enhanced computed tomography scan of the abdomen is the most sensitive imaging modality for diagnosing diverticulitis. Thickening of the cecal wall with focal peri cecal inflammation extending to the adjacent fascia, extraluminal air and peri cecal abscess are the findings seen in CT scan. The sensitivity and specificity of CECT scan in diagnosing diverticulitis was reported up to 98% in various studies[6].

The management of uncomplicated diverticulitis is primarily conservative with intravenous antibiotics. The recurrence rate following conservative management is less than 5%. Patients with complicated cecal diverticulitis who have Hinchey grade 2 or above based on their CECT scan will need surgical management. In patients with inflammation limited to the diverticulum, diverticulectomy can be done. In cases with inflammation in the adjacent cecal wall and doubtful diagnosis, ileocecal resection or right hemicolectomy is advised.

Posterolateral abdominal wall abscess due to complicated cecal diverticulitis is a rare presentation of cecal diverticulitis. The diagnosis was possible only post-operatively with histopathology and even with high quality CT scan the preoperative diagnosis was doubtful. We present this case to emphasize the diagnostic challenge in such complicated cases.

Conclusion

Cecal diverticulitis is commonly seen in young males with Asian ethnicity. CECT is the most sensitive diagnostic modality for diagnosing diverticulitis. In patients with posterior perforation and significant inflammatory changes, it is difficult to make the diagnosis even on imaging. Patients with uncomplicated diverticulitis can be managed conservatively with low risk of recurrence. In

complicated cecal diverticulitis, surgery is the treatment of choice and the procedure recommended is ileocecal resection or right hemicolectomy based on the extent of the inflammation.

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