

Encapsulated peritoneal sclerosis

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Abstract

Encapsulating peritoneal sclerosis (EPS) also known as abdominal cocoon is a rare cause of acute or subacute small bowel obstruction. It is characterized by total or partial encasement of the small bowel within a thick fibrocollagenous membrane which may be formed in response to prolonged, repetitive, and severe insult to the peritoneal mesothelium. This is frequently seen in the setting of peritoneal dialysis. However other causes may include chronic inflammation. We present a case of EPS in a male with infrequent abdominal pain, nausea and fever.

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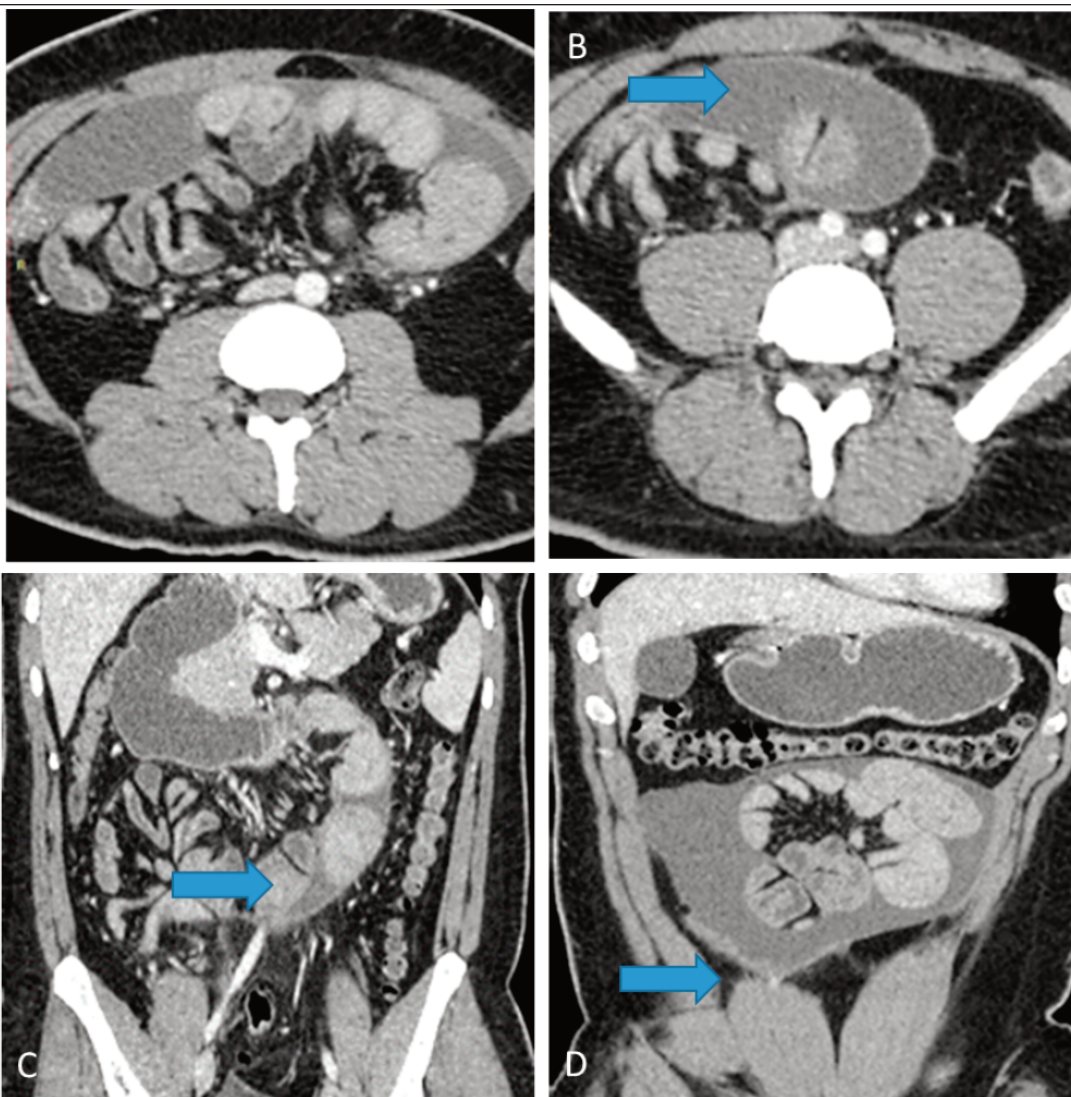


Figure: CT scan abdomen, (A & B) axial images showing enhancing peritoneal thickening and loculated ascites with peritoneal thickening, (C & D) shows compartmentalization of peritoneum.

A 25-year-old male presented for abdominal imaging to evaluate infrequent abdominal pain, nausea and fever. CT abdomen and pelvis with contrast showed compartmentalization of the small bowel mesentery with entrapped small bowel loops and loculated collection in the anterior abdomen, this was associated with thick enhancing peritoneal lining likely secondary to abdominal sepsis likely tuberculosis in etiology. (Figure) These findings are typical for Encapsulated Peritoneal Sclerosis (EPS).

EPS should be suspected in patients with intestinal obstruction without a definite cause. Recognition of characteristic CT findings helps in accurate diagnosis preoperatively and can help in appropriate clinical management. Symptomatic EPS has high mortality and morbidity. Many cases remain idiopathic while the most common etiologies are being long term peritoneal dialysis, peritoneal infections or systemic inflammation.¹ Various studies show an EPS prevalence of 0.7 - 3.3% in patients undergoing continuous ambulatory peritoneal dialysis.²

The most common CT imaging findings of EPS are encasement of loops of small bowel by thickened peritoneal reflections. In severe cases, small bowel dilatation caused by bowel obstruction was reported. Other findings were calcification and ascites. It is of utmost importance that primary EPS should be differentiated from secondary EPS as secondary EPS can be managed conservatively by giving ATT or Renin-angiotensin-aldosterone system inhibitor therapy, therapy with immunosuppressants (corticosteroids, cyclophosphamide, azathioprine, and mycophenolate mofetil) or tamoxifen therapy while surgery is proved to be a good treatment option in primary EPS.¹

References

1. Danford CJ, Lin SC, Smith MP, Wolf JL. Encapsulating peritoneal sclerosis. *World J Gastroenterol*. 2018;24:3101-3111.
 2. Brown MC, Simpson K, Kerssens JJ, Mactier RA; Scottish Renal Registry. Encapsulating peritoneal sclerosis in the new millennium: a national cohort study. *Clin J Am Soc Nephrol*. 2009;4:1222-9.
 3. Machado NO. Sclerosing Encapsulating Peritonitis: Review. *Sultan Qaboos Univ Med J*. 2016;16:e142-e151.
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