A 50-year-old male presented with vomiting and abdominal pain for 3 days. He is a known case of chronic renal failure for the past 2 years undergoing repeated peritoneal dialysis. On physical examination, his abdomen was distended. Laboratory investigation showed increased serum creatinine levels ∼6 mg/dL. Ultrasound abdomen showed shrunken kidneys with increased cortical echoes and ascites. Apart from that, thickened peritoneum or a membrane overlying the bowel loops was seen on high-frequency ultrasound as a triple-layer appearance, which is called “ultrasound trilaminar sign” (Fig. 1a, b) [1]. The “ultrasound trilaminar sign” is considered characteristic of the abdominal cocoon or encapsulating peritoneal sclerosis (EPS) [2]. EPS is characterized by clustered small bowel loops with narrow base and surrounding thick fibro-collagenous membrane. It may be idiopathic or secondary to repeated peritoneal dialysis, abdominal tuberculosis, abdominal surgeries, and drugs like propranolol [1, 3]. The three layers forming the ultrasound trilaminar appearance are the superficial hypoechoic peritoneal membrane, a middle hypoechoic layer of the bowel wall, and the deep hyperechoic layer produced by the bowel gas or contents [1]. This trilaminar appearance is not to be confused with computed tomography trilaminar sign, which represents submucosal bowel edema [1]. Presence of ascites is usually essential for identifying the trilaminar appearance and cauliflower-like appearance of clustered bowel loops. The patient was advised surgical evaluation for removal of membrane and adhesiolysis.

Statement of Ethics

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

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Conflict of Interest Statement

The authors declare that they have no conflict of interest. Informed consent was obtained from the individual participant included in the study.

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