ascitic fluid with high fat (triglyceride) content, usually higher than 110 mg/dL.

Chylous fluid in the peritoneal cavity is a rare clinical condition that occurs as a result of disruption of the abdominal lymphatics. Multiple causes have been described (table 1). Congenital chylous ascites is the commonest cause of chylothoracoele in young children. Other causes in children include idiopathic or obstructive lesions caused by malrotation, intussusception, incarcerated hernia, lymphangioma, blunt trauma, liver disease, and tuberculosis. In children, malrotation and volvulus contribute to chylous ascites. Volvulus of the midgut may result in several manifestations. Venous and lymphatic obstructions occur first because of lower intravascular pressures. Vascular congestion leads to bowel oedema and possible oozing of blood, causing melaena. Lymphatic congestion causes the formation of a mesenteric cyst and chylous ascites.

Milky ascites is subdivided into three groups: True chylous ascites - Fluid with high triglyceride content, Chyliform ascites - Fluid with a lecithin-globulin complex due to fatty degeneration of cells, and Pseudochylous ascites - Fluid that is milky in appearance due to the presence of pus. Dietary chylomicrons are absorbed in the small intestines and gradually pass along larger omental lymphatics to the cisterna chyli located anterior to the second lumbar vertebra. The cisterna is joined by the descending thoracic, right and left lumbar, and liver lymphatic trunks, and, collectively, these form the thoracic duct, which passes through the aortic hiatus and courses through the right posterior mediastinum and eventually enters the venous system. The thoracic duct carries lymphatic drainage from the entire body, except for the right side of the head and neck, right arm, and right side of thorax. Chylous effusions develop when these channels are injured or obstructed. Abdominal distension is the most common symptom, and rarely, it may present as acute peritonitis.

As chylous peritonitis is a manifestation rather than a disease, the prognosis depends on the treatment of the underlying disease or cause. Few cases presenting as chylous peritonitis are reported in literature.

Three cases presenting as acute appendicitis have been reported.5,6

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MESOTHELIOMA – “NOT JUST IN THE CHEST”

Editor,

Malignant deciduoid mesothelioma (MDM) is a rare phenotype of epithelioid mesothelioma, which most commonly occurs in the peritoneal cavity of young females. MDM remains a challenge even to the most astute diagnostician with the differential diagnosis being benign pseudotumoral deciduosis. It carries a dismal prognosis.

Case Report: A previously healthy 31-year-old woman presented with a short history of increasing abdominal girth and shortness of breath without weight loss. She smoked 15 cigarettes per day and had no risk factors for chronic liver disease or prior history of asbestos exposure. There was no family history of neurofibromatosis. Clinical examination revealed ascites in the absence of signs of chronic liver disease, café au lait spots or lymphadenopathy. Diagnostic paracentesis revealed no evidence of bacterial or mycobacterial infection. The serum ascites albumin gradient was 1.1g/dL. Cytopathology was consistent with benign reactive mesothelial cells although no leucocyte reaction was noted.

Haematological, tumour markers, inflammatory markers and biochemical parameters were in the normal range. A chest radiograph showed no signs of pericarditis, pleural plaques or effusions. Ultrasonographical and CT scanning demonstrated ascites with normal hepatic echotexture and antegrade flow in the portal vein. No thoracic lesions were seen. A diagnostic laparoscopy drained 9L of ascites and numerous small nodules were observed concentrated around the small bowel.

Histological examination of these nodules with conventional stains was consistent with a mesothelial process although it was impossible to differentiate between a benign reactive or neoplastic aetiology. Typical features of epithelioid mesothelioma were not observed. Further expert opinions were sought and immunostaining is shown in Figure 1.

Fig 1. Immunostaining revealed strong positivity for calretinin and cytokeratin which are considered to be sensitive and relatively specific markers for MDM.

These findings were consistent with the diagnosis of MDM. Combination chemotherapy with pemetrexed and cisplatin was initiated but she required multiple hospital admissions.
for therapeutic abdominal paracentesis. Our patient died 14 months after diagnosis.

MDM was first characterised in 1994 and accounts for approximately 4% of all mesotheliomas. In contrast to “classical” pleural mesothelioma, the most common site of disease is the peritoneum although a pleural form has been described. The most common presenting feature is ascites. There is a female preponderance (F = M ratio, 1.4:1) and younger age at presentation (<40 years). Rates of asbestos exposure are generally lower than “classical” mesothelioma (c.35%).

MDM is a highly malignant neoplasm with mean survival time reported as 7.33 months (range 1-29.4 months). Treatment is not curative and the main therapeutic goal is symptomatic palliation. To date, there is no standard treatment for MDM. Using established regimens for peritoneal mesothelioma, limited success has been observed using cytoreductive surgery and intraperitoneal hyperthermic chemotherapy.

MDM is the example par excellence for the difficulties that clinicians face in the differentiation between benign and malignant disease. Moreover, this case highlights the usefulness of diagnostic laparoscopy in investigating unexplained ascites. MDM is, and is likely to remain, a diagnostic challenge for clinicians, even the astute ones.

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