

Post operative chylous ascites after proximal splenorenal shunt

Mahendra S. Bhavsar, MBBS, MS¹, Hasmukh B. Vora, MBBS, MS², H.G. Venugopal, MBBS, MS³

1 Professor and Head, Department of Surgical Gastroenterology, SMT.NHL Municipal Medical College, Ahmedabad, Gujarat, India.

2 Associate Professor, Department of Surgical Gastroenterology, SMT.NHL Municipal Medical College, Ahmedabad, Gujarat, India.

3 Resident, (M.Ch Surgical Gastroenterology), Department of Surgical Gastroenterology, SMT.NHL Municipal Medical College, Ahmedabad, Gujarat, India

Key words: Chylous Ascites; Post-Surgical; Splenorenal Shunt.

Introduction

Chylous ascites is accumulation of chyle intraperitoneally either due to blockage of lymphatic flow or due to disruption of the lymphatic channels. It remains rare as a complication of abdominal surgery and most common causes are abdominal malignancy and aortic surgeries [1]. Here we report a case of chylous ascites after proximal splenorenal shunt (PSRS) for variceal bleeding due to extrahepatic portal venous obstruction (EHPVO).

Case report

An 11 year old boy who had haematemesis due to oesophageal varices secondary to EHPVO was posted for PSRS. Per operatively there was no ascites, liver biopsy was taken and PSRS was done (Figure 1). Liver biopsy revealed no evidence of cirrhosis. From second day of surgery patient developed ascites and about 2 litres of milky white coloured fluid was collected in the drain (Figure 2). Fluid examination revealed triglycerides 653 mg%, protein 3.8gm/l with presence of fat globules on microscopy with predominant lymphocytes. A diagnosis of postoperative chylous ascites was made and was managed conservatively with fat restricted high protein diet with supplementation of medium chain triglycerides in the form of coconut paste and diuretics. The patient was

also fed with the drained out chylous fluid through nasogastric tube. By 21st day the drain output decreased to <100 ml and drain was removed and patient discharged. The patient was followed up for approximately one year without any evidence of ascites or any other complaint.

Discussion

The pathogenesis of postoperative chylous ascites is due to mechanical disruption of lymph flow resulting in accumulation of lymph in the peritoneal cavity. The surgical procedures that may cause chylous ascites include aortic surgeries, retroperitoneal lymph node dissection, inferior venacaval resection, distal splenorenal shunt, and liver transplantation. Maywood et al. suggested that chylous ascites is not rare after distal splenorenal shunt, and may be due to extensive dissection along the intestinal lymphatics [2]. But chylous ascites after PSRS is very rare and we could not find any reports in the online survey. In our case it may have been caused by lymphatic disruption during retroperitoneal dissection of the left renal and splenic veins. Cytology of fluid shows predominantly lymphocytes. Chemical analysis reveals high triglyceride levels 2–8 fold that of plasma (0.4–4 gm/dl) and protein content greater than 3 gm/dl. Routine imaging modalities do not detect the lymphatic leak. Pui and Yueh claim that lymphoscintigraphy can accurately pinpoint lymphatic leaks and thus may be a useful tool in

Correspondence: H.G. Venugopal, B-33, Doctors Quarters, V.S. Hospital Campus, Ellisbridge, Ahmedabad, India 380006

Email: drvenugopalhg@gmail.com

The Sri Lanka Journal of Surgery 2012; 30(1):41-42.

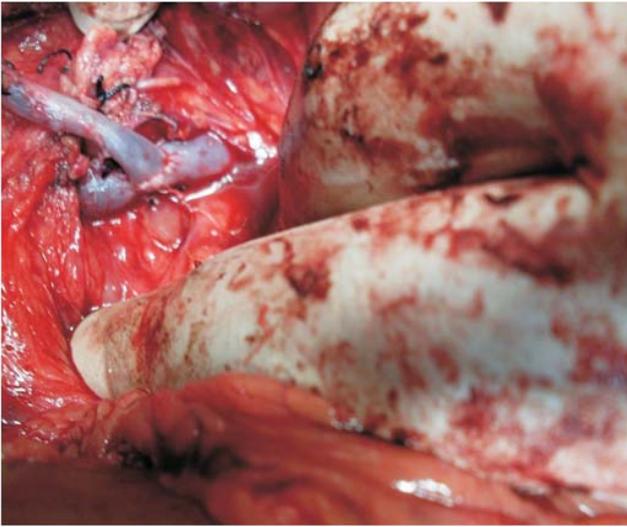


Figure 1. Proximal splenorenal shunt

selecting patients for surgery [3].

Suggested treatments are serial paracentesis, medium chain triglycerides, total parenteral nutrition and somatostatin as conservative management [1]. Surgical intervention is needed if the lymphatic leak persists in spite of maximal conservative therapy for several weeks. This usually entails either direct suture ligation of the disrupted lymphatic channels or insertion of a peritoneovenous shunt [4]. Generally non-surgical chylous ascites responds poorly than post-surgical ascites to surgical management.

Key Learning Points

- Chylous ascites is a rare complication of abdominal surgery.
- Common causes are abdominal malignancy and aortic operations, retroperitoneal lymph node dissection, inferior vena caval resection, distal splenorenal shunt, and liver transplantation.



Figure 2. Postoperative chylous ascites

References

1. Cardenas A, Chopra S. Chylous ascites. *Am J Gastroenterol* 2002; 97:1896–900.
2. Maywood BT, Goldstein L, Busuttill RW. Chylous ascites after a Warren shunt. *Am J Surg* 1978; 135:700-2.
3. Pui MH, Yueh TC. Lymphoscintigraphy in chyluria, chyloperitoneum and chylothorax. *J Nucl Med* 1998; 39:1292-6.
4. Combe J, Buniet JM, Douge C et al. Chylothorax and chylous ascites following surgery of an inflammatory aortic aneurysm. Case report with review of the literature. *J Mal Vasc* 1992; 17:151-6.