

Answer: Triglycerides.

MCQ Explanation:

Ascitic fluid studies yielded the following: triglyceride 255 mg/dL, cholesterol <50 mg/dL, LDH 73 U/L, total protein 2.7 g/dL, albumin 1.2 g/dL (SAAG 1.1), glucose 124 mg/dL, amylase 34 IU/L, lipase 38 IU/L, total bilirubin 0.2 mg/dL, WBC 377/ $\mu$ L (24% lymphocytes), RBC 666/ $\mu$ L, negative cytology and cultures. An ascitic albumin level is used to calculate the serum-ascites albumin gradient (SAAG), with > 1.1 g/dL indicative of transudative ascites and portal hypertension. An LDH ascites-serum ratio > 0.6 or total protein ascites-protein ratio > 0.5 favors an exudative process and argues against uncomplicated hepatic disease. Cell count and differential is essential to exclude spontaneous bacterial peritonitis (positive if > 250 PMNs/mL). An increased cholesterol level is suggestive of malignant ascites. Finally, lipase is elevated in ascites of pancreatic origin. Our patient had chylous ascites due to intra-operative trauma to the cisterna chyli, a complication that has yet to be reported in literature after isolated splenectomy.

The teaching point of this case is to recognize the milky appearance of chylous ascites and to order a triglyceride level to confirm the diagnosis. The incidence of post-splenectomy chylous ascites is unknown, but is reported to be only 2.4% after combined gastrectomy and pancreaticosplenectomy (1). The patient improved on bowel rest, total parenteral nutrition, albumin replacement, and octreotide (2).

References:

1. Weniger M, D'Haese JG, Angele MK, Kleespies A, Werner J, Hartwig W. Treatment options for chylous ascites after major abdominal surgery: a systematic review. *Am J Surg*. 2015.
2. Gurusamy KS, Koti R, Fusai G, Davidson BR. Somatostatin analogues for pancreatic surgery. *Cochrane database Syst Rev*. 2013;4:CD008370.

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