Peach-Colored Effluent in an Urgent-Start PD Patient

A 70-year-old man with a history of stage 3 chronic kidney disease, coronary disease, diabetes, and hypertension presented with progressive azotemia. After treatment with idelalisib for diffuse large B-cell lymphoma, his renal function worsened, with peak blood urea nitrogen (BUN) 111 mg/dL and creatinine 7.8 mg/dL in spite of intravenous volume resuscitation due to tumor lysis syndrome. For initiation of peritoneal dialysis (PD), a percutaneous PD catheter was placed after infusion of desmopressin and 10 units of platelets. Urgent-start PD was initiated with supine, low-volume exchanges. Though the dialysis effluent was persistently blood-tinged due to thrombocytopenia, treatment proceeded without complication. Ten days after catheter placement, “peach-colored” effluent was observed on his first drain (see Figure 1). He denied nausea, anorexia, fevers, abdominal pain, or changes in bowel habits. On examination, the patient appeared well, afebrile with soft abdomen, and had a clean catheter exit site. Automated PD was performed and the effluent cleared.

Laboratory tests revealed a white blood cell (WBC) count of 5.5, hemoglobin of 9.8 g/dL, and platelet count of 9,000. Peritoneal fluid contained 7,656 red blood cells per milliliter (RBC/mL) and 949 WBC/mL. The cell differential on the peritoneal fluid showed 99% lymphocytes and 1% monocytes. Gram stain and bacterial culture were negative. Chemical analysis showed a triglyceride level of 281 mg/dL, confirming the diagnosis of chylous ascites. The patient continued on in-center supine PD without complication, and he was transitioned to home treatment 2 weeks after catheter placement. He started ibrutinib for B-cell lymphoma. Unfortunately, the cancer continued to progress, with refractory anemia and thrombocytopenia. Three months after initiation of PD, he elected for hospice care at home.

Figure 1 — Peach-colored effluent on first drain.

Chylous ascites is one of several causes of cloudy peritoneal dialysate (1). The milky appearance results from triglycerides, which accumulate in the peritoneal fluid due to lymphatic obstruction. Among the various causes of lymphatic obstruction are malignancy, cirrhosis, infection, inflammation, and post-surgical trauma. The diagnosis is made when the peritoneal fluid triglyceride concentration is greater than 200 mg/dL. Other characteristic ascitic fluid findings are a WBC count above 500 with lymphocyte predominance, and a low serum-ascites albumin gradient (2).

Management of chylous ascites focuses on treatment of the underlying etiology, particularly when there is an infectious, inflammatory, or hemodynamic cause. In cases where the cause is uncertain, a high-protein and low-fat diet with medium-chain triglycerides may reduce the flow of chyle and intestinal lymph and decrease fluid accumulation. Total parenteral nutrition may be necessary in refractory cases (2,3).

In the case of this patient, the chylous ascites never resolved. The combination of blood-tinged fluid from severe thrombocytopenia and cream-colored fluid from triglyceride accumulation resulted in the “peach-colored” effluent that was observed at his first outpatient treatment.

ACKNOWLEDGMENTS

The photograph was taken by Sharon Sussman, RN. Both Sharon Sussman and Eleanor Cadillac, RN were closely involved in the patient’s care.

DISCLOSURES

The authors have no financial conflicts of interest to declare.

Susie L. Hu
Eric S. Kerns*

Department of Medicine, Division of Kidney Disease
and Hypertension
Rhode Island Hospital and Warren Alpert Medical School of
Brown University, Providence, RI

*email: ekerns@lifespan.org

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doi: 10.3747/pdi.2015.00131