A 38-year-old woman, a known case of myasthenia gravis, was admitted to our hospital’s intensive care unit (ICU) due to frequent exacerbations of her illness. She was receiving prednisolone, azathioprine, mestinone, cyclosporine, and intravenous immunoglobulin treatment. Thymectomy had been performed one year prior to this admission. The patient was successfully weaned from the ventilator after prolonged support and hyperalimentation via a subclavian catheter, but episodes of tachypnea and tachycardia persuaded physicians to provide her with intermittent airway support through a tracheostomy tube. On chest examination, there was a decrease in breath sounds with an increase in dullness, especially on the right side.

Chest X-ray and computed tomography (CT) showed increasing pleural effusion in the right hemithorax (Images 1, 2 and 3). Analysis of the milky fluid aspirated at thoracocentesis (image 4) showed a white cell count of 3100, with 85% polymorphonuclear neutrophils and 15% lymphocytes, a glucose concentration of 214 mg/dL, a protein concentration of 2.8 g/dL, an albumin concentration of 0.74 g/dL, a cholesterol concentration of 5 mg/dL, a triglyceride concentration of 1500 mg/dL, and a low-density lipoprotein cholesterol level of 99 IU/L.

Your Diagnosis?
See next page for diagnosis.
Bilateral and unilateral pleural effusion are quite common in ICU patients, especially after prolonged stay; small amounts of effusion need no further investigation. Routine exploratory thoracocentesis in the ICU is not accepted by all physicians, due both to danger or fear of complications in mechanically ventilated patients, and a lack of epidemiologic data regarding the risk-benefit yield of the procedure. Only one recent study has shown the usefulness of routine exploratory thoracocentesis in clinically documented pleural effusions in the ICU. In our patient, although respiratory distress was first attributed to myasthenic crisis, the need for further control and increasing pleural fluid necessitated thoracocentesis and analysis of the milky fluid that resulted (Image 4). Due to hyperalimentation with a lipid-enriched solution (intralipid), we suspected resulted (Image 4). Due to hyperalimentation with a lipid-enriched solution (intralipid), we suspected this rare and potentially lethal complication should be borne in mind in daily ICU practice.

References

Hassan Heidarnazhad MD, Ali Tagizadieh MD, Critical Care Unit, Tuberculosis and Respiratory Research Center, Tabriz University of Medical Sciences, Tabriz, Iran.