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PLEURAL EFFUSIONS ASSOCIATED WITH SPINAL TUBERCULOSIS



To the Editor:

Unusual complications of spinal tuberculosis include not only bilateral pleural effusions, where both effusions occur simultaneously, as in the recent case report (1). There is also the example of a 25-year-old man with spinal tuberculosis, and in whom the right-sided pleural effusion appeared at the time when the left-sided pleural effusion was resolving in response to antituberculous chemotherapy (2).

Chylothorax is another category of pleural effusion associated with spinal tuberculosis. This was radiographically documented as bilateral pleural effusion in a 60-year-old woman with coexisting spinal tuberculosis. Stigmata of chylothorax, in both pleural effusions, included milky appearance and a triglyceride content of 1092 mg/dL. Spinal tuberculosis was characterized by computed tomography (CT) showing bilateral soft-tissue shadowing at T4–T5 and also at T10–T11, in the absence of evidence of lymphadenopathy. Further CT evaluation revealed extensive anterior erosion of T10–T11, and mottled appearance of adjacent vertebral architecture with a sclerotic border demarcating a central cavity. This was strongly suggestive of tuberculous spondylitis, but the patient refused needle aspiration of T10–T11. On the basis of the CT findings and on the basis of a strongly positive tuberculin skin test, the patient was prescribed antituberculous chemotherapy. After 12 months of therapy the pleural effusions resolved, and there was a striking improvement in the bony abnormalities (3).

Finally, tuberculous spondylitis may be complicated both by tuberculous empyema and by the occurrence of chylothorax, the latter subsequent to repeated aspiration of the tuberculous empyema. The above was the course of events in a 67-year-old man in whom these complications were attributable to rupture of a spinal abscess in the T12/L1 region. Initially, the patient had a purulent pleural effusion that communicated with the paravertebral abscess through the diaphragm. The purulent pleural effusion contained acid-fast bacilli fully sensitive to antituberculous chemotherapy. The subsequent chylous effusion was characterized by a triglyceride content > 110 mg/dL (4).

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<http://dx.doi.org/10.1016/j.jemermed.2018.09.060>

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The Reply:

I read with interest the letter by Dr. Jolobe. His argument was that in a patient with thoracic spinal tuberculosis, chylothorax could be the cause of bilateral pleural effusion. I agree with Dr. Jolobe. Chylothorax is, in fact, a collection of chylous lymphatic fluid within the pleural cavity. Obstruction of thoracic duct and disruption of lymphatic flow within the thoracic cavity can result in chylothorax. Chylothorax has many causes, like lymphomas and other thoracic malignancies: iatrogenic after thoracic surgeries, traumatic chest injuries, and congenital duct abnormalities (1,2). In India, filariasis is a relatively more common cause of chylothorax than tuberculosis.

Diagnosis of chylothorax requires demonstration of cholesterol and triglycerides in the pleural fluid. Occasionally, pseudochylothorax develops when an exudative pleural effusion remains in the pleural space for years, and the pleural fluid becomes enriched with cholesterol (1,2).

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<http://dx.doi.org/10.1016/j.jemermed.2019.03.017>

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