

Research Symposium

Mycobacterium Chimaera in a Young Patient without Underlying Cardiac Surgery History.

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<https://doi.org/10.51894/001c.166019>

Spartan Medical Research Journal

Vol. 11, Issue 2, 2026

124

INTRODUCTION

Mycobacterium chimaera (*M. chimaera*), within the *Mycobacterium Avium Complex* (MAC), is a slow-growing non-tuberculous mycobacterium (NTM) species that is most often characterized by nonspecific symptoms of night sweats, fever, and fatigue. Due to the nonspecific symptoms of *M. chimaera* and the rarity of this infection, delayed or misdiagnosis occurs in these patients. Risk factors of contaminated heater-cooler units used in cardiac surgery have been reported; however, cases without this exposure, such as this case, have been cited less frequently. This case of *M. chimaera* will present a young patient with dyspnea who was found to have a hemorrhagic pleural effusion.

CASE DESCRIPTION

A 39-year-old female with horseshoe kidney and recent preeclampsia presented with dyspnea and pleuritic, left-sided chest pain radiating to her back. The patient endorsed several days of night sweats, fatigue, chills, and severe headache without leukocytosis. The patient worked in a manufacturing plant with poor sanitary conditions. Imaging showed a large, complex left pleural effusion. Thoracentesis revealed hemorrhagic fluid with a lymphocytic predominance. Differential included malignancy and infection. Additionally, a positive pregnancy test prompted evaluation for ectopic pregnancy and gestational trophoblastic

neoplasia. A chest tube was placed, and tPA/dornase was given. The chest tube output became milky and showed triglycerides and cholesterol, suggestive of chylothorax. Infectious workup was negative, except for two sputum cultures that grew *M. chimaera*. Management was guided by a multidisciplinary team.

DISCUSSION

The nonspecific presentations of *M. chimaera* can be difficult to diagnose, especially without risk factors of cardiac surgery. This patient's *M. chimaera* diagnosis was complicated by the changing characteristics of the pleural effusion and the positive pregnancy test. Initially, the differential was broad, including autoimmune, malignant, infectious, and gynecologic etiologies. However, the pleural fluid with lymphocytic predominance and the sputum cultures growing *M. chimaera* narrowed the differential.

CONCLUSION

Broad differentials are important for nonspecific presentations, and a high degree of suspicion for rare infections is needed. It is essential to integrate clinical decision-making amongst a multidisciplinary team to identify rare infections. Hopefully, this case helps to make more providers aware of *M. chimaera* amongst patients without traditionally cited risk factors.

Accepted: July 15, 2026 EDT. Published: July 31, 2026 EDT.

