

Title: A Case Report of *Candida parapsilosis* Empyema Thoracis

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ABSTRACT.

Background: *Candida* empyema thoracis is a rare invasive candidiasis with poor prognosis. While more deadly in immunocompromised patients, it also occurs in the immunocompetent. There are no guidelines on treatment due to lack of research, but case reviews have shown antifungals, drainage, and surgery to be effective therapies.

The Case: A 63-year-old male with a past medical history of pulmonary emboli developed worsening left-sided chest pain associated with shortness of breath and productive cough that was occasionally blood-tinged. Extensive imaging and thoracentesis confirmed an expanding left-sided parapneumonic effusion that was drained and found to grow *Streptococcus anginosus* and *Candida parapsilosis*.

A chest tube was placed and after multiple rounds of intrathoracic tPA the patient gradually improved following progressive removal of effusion and IV antibiotics and antifungals. The patient was then discharged with the remainder of his 18-day course of amoxicillin-clavulanate and fluconazole, with follow up imaging scheduled in the outpatient setting.

Discussion: Given the paucity of studies on *Candida* empyema, there are no definitive treatment guidelines or recommendations for this deadly infection. This patient's course and outcome are fairly representative of the existing literature, including a 2021 retrospective study of 81 patients with *Candida* empyema at two academic centers which posited that optimal management included pleural drainage and fluconazole treatment.