

Fungal empyema thoracis in cancer patients.

Nigo M, Vial MR, Munita JM, Jiang Y, Tarrand J, Jimenez CA, Kontoyiannis DP.

Abstract

OBJECTIVES: Fungal empyema thoracis (FET) is a rare life-threatening infection. We sought to describe the clinical characteristics of FET in a large academic cancer center.

METHODS: We conducted a retrospective chart review of all cancer patients who had a fungal isolate from the pleural fluid culture between 1/2005 and 8/2013.

RESULTS: A total of 106 fungal isolates were identified in 97 patients. Yeasts accounted for 62% of the isolates whereas 38% were identified as molds. The most frequent pathogens were *Candida* spp. (58%) and *Aspergillus* spp. (12%). All patients with *Aspergillus* and 83% with *Candida* met criteria for proven fungal disease. Compared to the *Aspergillus* group, *Candida* FET was associated with recent abdominal or thoracic surgical procedures (44% vs. 0%, $p = 0.01$). Overall, 6-week mortality was high, with no significant differences between *Candida* and *Aspergillus* (31% vs. 45%, respectively [$p = 0.48$]). Only 1 out of 11 patients with uncommon molds died at 6 weeks, despite only 2 of them received appropriate antifungal therapy.

CONCLUSIONS: Development of FET carries a high mortality in cancer patients. A history of a recent surgical procedure is a risk factor for FET due to *Candida*. Isolation of uncommon molds is likely to represent a contamination of the pleural fluid.