Candida Empyema Thoracis: A Fungal Mystery

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Introduction

• Candida empyema thoracis as a complication following esophageal perforation is a severe manifestation of invasive candidiasis associated with high mortality
• Strong clinical acumen and an interdisciplinary approach are required for early diagnosis and treatment
• We present a unique case of Candida empyema thoracis

Case Presentation

A 61-year-old male presented with an acute abdomen and hematochezia
Laboratory work-up showed leukocytosis, elevated inflammatory markers, and lactic acidosis
Abdominal imaging revealed diffuse pneumatosis, for which he underwent emergent total colectomy for ischemic bowel
The patient could not tolerate liquids resulting in emesis, following which the patient became hypoxic and unresponsive

Candida typically colonizes the oral cavity, intestine, and vagina
Fungal empyema is rare, with reported cases following gastrointestinal perforation, post-radiation, and immunocompromised populations
Our patient was unique with no comorbidity
The diagnosis of fungal empyema thoracis requires three elements 1
• isolation of fungal species from thoracocentesis fluid belonging to exudates category
• significant signs of infection like fever or leukocytosis
• isolated fungus other specimens such as blood culture

In our case, the patient satisfied all three criteria
Candida albicans is still the most common cause
However, there has been a rise in non-albicans species
Candida glabrata which accounts for 20 to 26% of all Candida empyema
Studies have shown that these species are resistant to azole therapies
Hence, fluconazole is no longer the first-line management

Discussion

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Conclusion

• Therefore, clinicians' and microbiologists' collaboration is vital in early diagnosis and good prognosis.