

Septic shock and procalcitonin in Coccidioides infection

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Case summary:

74 year old Filipino man with diabetes

- Presented with 2 days of rapid cognitive and functional decline.
- Hypotensive, tachycardic, febrile.
- Initial leukocytosis of 27,000/µL with neutrophilia, bandemia, and eosinophilia.

Elevated procalcitonin (>400 ng/mL)

- Bronchoalveoloar lavage culture positive for *Coccidioides*, 1,3-beta-D-glucan >500
 Amphotericin B initiated.
- Developed respiratory failure, anuric renal failure and refractory shock before succumbing to disease.



Discussion:

- Septic shock is a rare complication of coccidioidomycosis:
 - 31 previously reported cases.
 - **Delayed diagnosis** common due to syndromic similarity to bacterial sepsis and rarity.
- Mortality high (23/31 cases, 74%)
- All reported survivors received **amphotericin B.**
- Majority of reported cases in **non-Caucasian** racial/ethnic groups
- Comorbidities common.
- Marked elevation of procalcitonin suggests that **biomarkers may not be useful** for excluding coccidioidomycosis in severe disease.

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