

SUSPECTED CULTURE-NEGATIVE SEPTICEMIA COMPLICATED BY SEVERE DRUG-INDUCED ERYTHRODERMA AND POLYSEROSITIS IN AN ADVANCED HIV PATIENT ON ANTI-TUBERCULOSIS THERAPY: A CASE REPORT

Pati Gabunia

Tsertsvadze Infectious Diseases, AIDS and Clinical Immunology Research Center, Tbilisi, Georgia

Phone: +995599176085, E-mail: pg@aidscenter.ge

DOI: 10.52340/geoanesthesia.2026.09.17

Keywords: Advanced HIV, Suspected Septicemia, Culture-Negative Sepsis, Erythroderma, Polyserositis, Drug Hypersensitivity.

Background: Sepsis and septicemia in advanced HIV/AIDS patients present significant diagnostic difficulties due to profound immune disruption. When complicated by opportunistic co-infections like tuberculosis (TB), clinical management is further obscured by multi-organ failure and life-threatening adverse drug events, such as culture-negative systemic inflammation mimicry and severe cutaneous hypersensitivity reactions [1].

Case Presentation: A 44-year-old female diagnosed with advanced HIV infection (baseline viral load 298,000 copies/mL) presented with a 2-month history of generalized lymphadenopathy, wasting syndrome, and infective endocarditis. Following positive TB cultures, she was stabilized on first-line anti-TB therapy (Isoniazid, Rifapentin, Pyrazinamide, Moxifloxacin) and antiretroviral therapy (DTG/3TC/TDF). Two months later, she experienced an acute clinical deterioration characterized by high fever, toxic liver injury with severe cholestasis (total bilirubin 25.9 mg/dL), worsening anemia, and severe polyserositis with bilateral pleural effusions. Concurrently, she developed a generalized dermatological crisis with diffuse erythema, infiltration, massive ichthyosis-like scaling, and palmar/plantar desquamation, accompanied by an IgE surge (>2500 IU/mL). Due to persistent spikes in systemic inflammatory markers and clinical instability, occult septicemia was strongly suspected. However, extensive biological fluid cultures—including repeated blood, sputum, and serous effusions—remained negative for pathological flora. Suspected culture-negative septicemia secondary to epithelial barrier damage or drug-induced hypersensitivity (DRESS/erythroderma) was managed by immediately discontinuing the culprit anti-TB drugs. Treatment with intravenous dexamethasone (4mg/day), intensive emollient care, albumin, and ademetionine infusions yielded rapid hemodynamic stabilization and cutaneous resolution, while ART was successfully maintained (CD4 count rebounded to 809 cells/mm³).

Conclusion: This case highlights that advanced HIV patients can exhibit a critical overlap between suspected culture-negative septicemia and severe systemic drug hypersensitivity reactions. When vital epithelial barriers are compromised, differentiation between occult sepsis and toxic erythroderma is challenging. Early recognition, immediate withdrawal of hepatotoxic or dermatotoxic anti-TB agents, and aggressive supportive therapy are vital to ensure survival without interrupting antiretroviral control.

References

[1] Ambrosioni J, Levi LI, Alagaratnam J, et al. European AIDS Clinical Society (EACS) Guidelines version 13.0, 2025. DOI: 10.1111/hiv.70120.