

Culture-Negative Endocarditis Complicated with Mycotic Aneurysm and Intracranial Bleed- A Case Report

¹Jose Rivera, MD. ¹Daniel Aragon, MD. ¹Ayesha Khan, MD. ²Juan Padilla, MD. ³Micheal Menowsky, MD.
¹University of Texas Rio Grande Valley. DHR Internal Medicine Residency Program. ²DHR Neurosurgery Department. ³DHR Emergency Medicine/Critical Care Department.

Background:

Blood culture-negative infective endocarditis (IE) requires at least three independent blood samples with negative cultures after seven days of incubation. Ischemic events are the most frequent neurologic complication of IE with intracranial mycotic aneurysms being the consequence of displacement of septic emboli from valvular vegetations. In this case report, we describe a young gentleman who initially presented with neurologic deficit and was later found to have mycotic aneurysms and culture negative infective endocarditis.

Case Presentation:

A 34-year-old man with a past medical history of Tourette Syndrome presented to the Emergency department (ED) due to acute change in mental status. In the ED, the patient was found to have a Glasgow Coma Scale of 4 and was immediately intubated. Initial computed tomography (CT) of the head without contrast showed a large intraparenchymal hematoma within the left frontal lobe with internal hypoechoic densities suggesting active bleeding and a left-to-right midline shift. A subarachnoid hemorrhage was also noted on the left. The patient was taken to the operating room for emergent right ventriculostomy placement. Subsequent CT angiography of the head revealed a focal lobulated area of contrast density suspicious for a ruptured aneurysm. An additional peripheral aneurysm was found within the peripheral aspect of the right parietal lobe. Due to peripheral location of the aneurysms, they were deemed to be mycotic and patient underwent embolization of the left frontal and right parietal aneurysms. Patient was initially treated with vancomycin and piperacillin-tazobactam for the first 24 hours and was later switched to vancomycin, ceftriaxone, and tobramycin by the infectious disease specialist. Due to patient having recurrent fevers despite antibiotic therapy, a transesophageal echocardiogram (TEE) was performed showing a small mobile echodensity on the anterior leaflet of the mitral valve, highly suspicious of vegetation and endocarditis. The anaerobic bottle of the initial blood culture grew anaerobic gram-positive cocci, identified as *Finegoldia magna* suspected to be a contaminant. Subsequent cultures were negative.

Conclusion:

Currently, there are no randomized trials to guide the management of infected aneurysms. Management strategies are based upon clinical experience usually with antibiotic therapy combined with surgical debridement and revascularization.