

A case of disseminated aspergillus infection in immunocompetent host

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Introduction: Although *Aspergillus* is a pathogen that mostly affects immunocompromised host including those with hematologic malignancies, solid organ or bone marrow transplants, and long term use of steroids or immunosuppressive agents, invasive aspergillosis can rarely occur in immunocompetent hosts. We describe here a case of disseminated aspergillus infection in immunocompetent host, presenting as infective endocarditis, infectious spondylitis and embolic brain infarction.

Case presentation: A 51-year-old female was presented with sudden left hemiplegia since the day before. She also complained of back and pelvic pain over 6 months. She had been treated for pulmonary tuberculosis 23 years ago. Magnetic resonance imaging of brain showed total occlusion of right proximal internal carotid artery and middle cerebral artery, suggesting an acute ischemic stroke. Transesophageal echocardiography (TEE) to evaluate an etiology of stroke showed that multiple vegetations at mitral valve with chordae rupture, and bicuspid aortic valve with aortic stenosis. Abdomen and chest CT scan showed bronchocele of left upper lobe and osteolytic lesions of T9-10 and L3/4 vertebral body, leading to the suspicion of infective spondylitis. Surgical valve replacement was done, and operative pathology revealed tissue invasion by fungal hyphae, and mitral valve cultures grew *Aspergillus fumigatus*. A diagnosis was made of multisystemic involvement of invasive aspergillosis (heart, brain, spine). Intravenous voriconazole was started immediately. Considering the bronchocele could be colonized by aspergillus, bronchoscopy was performed, but fungal culture was negative. Surgical debridement of infectious spondylitis was delayed until the 74th day, and the pathology showed *Aspergillus*, as well. After the surgery, serum galactomannan level decreased to the normal range. She was discharged on the 86th day with oral voriconazole.

Conclusion: Disseminated aspergillosis in immunocompetent hosts is rarely reported. However, disseminated aspergillus infection should be considered with unusual lung lesion, and unusual presentation of multi-system involvement with some indolent symptomatic presentation.

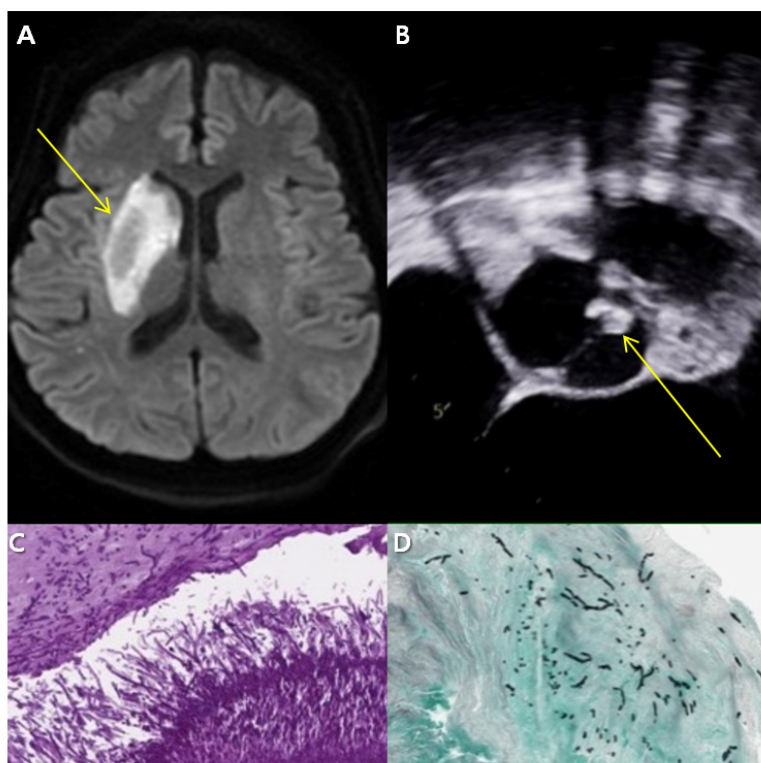


Figure (A) Magnetic resonance imaging of brain showing diffusion restriction at Rt basal ganglia, suggesting acute infarction (B) Transesophageal echocardiogram showing multiple mass with mixed echogenicity on the LA side of mitral valve (C) Mitral valve tissue showing fungus, most likely *Aspergillus* (D) Bone and soft tissue, lumbar spine 3/4 stained GMS showing fungal organisms, morphologically consistent with *Aspergillus* species