Rare Complication of Infective Endocarditis: A Case of Septic Embolus Causing Diplopia

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Introduction: Infective endocarditis, an infection of the cardiac endothelium, typically affects the heart valves and can lead to serious complications, including bacteremia and the formation of septic emboli. This case report highlights a rare complication of infective endocarditis and emphasizes the importance of early recognition and intervention.

Case Presentation: A 34-year-old male with a history of intravenous drug use was admitted to the intensive care unit (ICU) following an overdose. While intubated, the patient developed bacteremia, with blood cultures revealing methicillin-resistant Staphylococcus aureus (MRSA). A transesophageal echocardiogram (TEE) identified a 4 mm vegetation on the anterior leaflet of the mitral valve. Upon extubation, the patient reported abdominal pain and diplopia. A computed tomography (CT) scan of the abdomen revealed bilateral renal artery stenosis, and an ophthalmologic examination showed impaired movement of the left medial rectus muscle. These findings were attributed to septic emboli in the bilateral renal arteries and the inferior ophthalmic artery.

Discussion: This case highlights a rare presentation of infective endocarditis where septic emboli led to diplopia due to embolization to the inferior ophthalmic artery. Although septic emboli are a known risk, their effects can be unpredictable based on their size and location. The patient's diplopia underscores the need for vigilance in identifying septic emboli in new neurological or ophthalmological symptoms and in high-risk patients. Effective management requires a multidisciplinary team and emphasizes early, aggressive treatment of infective endocarditis, including possible surgical intervention. This case illustrates the importance of comprehensive evaluation and timely intervention to prevent severe complications.

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Conclusion: Early identification of septic emboli in high-risk patients, such as those with intravenous drug use, is crucial to prevent irreversible organ damage. Clinicians should maintain a high index of suspicion to ensure timely diagnosis and management.

Keywords: Septic Emboli, Infective Endocarditis, Diplopia, Rare

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