Abstract for Case Report

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# Title: The Silent Saboteur: A Case of Infective Endocarditis With Misleading Signs

Introduction:

Infective endocarditis (IE) is a life-threatening condition that often presents with non-specific symptoms, complicating early diagnosis. This case report from Sarawak underscores the importance of maintaining a high index of suspicion and the crucial role of bedside echocardiography in the emergency department (ED).

Case Presentation:

A 44-year-old Chinese man with no known comorbidities presented to the ED in Sarawak with symptoms of a urinary tract infection (UTI) despite completing a course of antibiotics. Urine analysis showed a positive nitrite test. During evaluation, a bedside Point-of-Care Ultrasound (POCUS) revealed vegetation on the anterior leaflet of the mitral valve. Based on these findings, the patient was treated for infective endocarditis. Blood cultures and a comprehensive echocardiogram confirmed the IE diagnosis. He was started on intravenous antibiotics and referred to cardiology for further management. Early identification and treatment likely improved his prognosis and avoided complications.

Discussion:

Infective endocarditis (IE) occurs when bacteria or fungi enter the bloodstream and attach to damaged heart areas, commonly the mitral and aortic valves. In this case, the UTI likely led to bacteremia, which caused IE. UTIs, often caused by Escherichia coli, can ascend from the urethra to the bladder and kidneys, sometimes entering the bloodstream and reaching the heart, particularly if there is preexisting cardiac damage. This leads to the formation of vegetations on the heart valves, resulting in IE. The progression from UTI to IE presents a diagnostic challenge, highlighting the importance of bedside echocardiography in the ED.

Conclusion:

This case illustrates the critical need for a high index of suspicion for infective endocarditis, even in patients with common infections like UTIs. Bedside echocardiography in the ED was pivotal in detecting an abnormality leading to the IE diagnosis. This case underscores the invaluable role of POCUS in early detection and treatment of serious conditions that might be missed with standard diagnostics.

Keywords: Infective endocarditis, Point-of-Care Ultrasound (POCUS), Bedside Echocardiography

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