Abstract for Case Report

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# Title: Healing Hearts: Rural Sarawak's Urgent Triumph

Introduction: Cardiac tamponade secondary to purulent pericarditis is a rare yet life-threatening condition necessitating immediate diagnosis and intervention. Purulent pericarditis, characterized by localized infection in the pericardial space, presents unique challenges in diagnosis and management. This case report emphasizes the pivotal role of bedside echocardiography and emergent pericardiocentesis in addressing cardiac tamponade secondary to purulent pericarditis, particularly in resource-limited rural settings.

Case Presentation: A 43-year-old Iban man with a history of epilepsy presented to Hospital Lundu with symptoms suggestive of cardiac tamponade. Despite initial stability, his clinical condition rapidly deteriorated, prompting urgent transfer to Sarawak General Hospital. Bedside echocardiography revealed a pericardial effusion with signs of tamponade, necessitating emergent pericardiocentesis. Pericardial fluid analysis confirmed the diagnosis of purulent pericarditis.

Discussion: This case discussion further highlights the challenges posed by purulent pericarditis, a condition characterized by localized infection in the pericardial space. Purulent pericarditis differs from other forms of infectious pericarditis, emphasizing the importance of distinguishing purulent effusions through meticulous diagnostic evaluation. While mechanisms of infection vary, Staphylococcus aureus emerges as the primary culprit, although other pathogens, including Streptococcus pneumoniae and tuberculosis, also contribute. Clinical presentation often includes fever, tachycardia, and chest pain, with diagnosis confirmed through pericardial fluid analysis, which may guide treatment decisions. In resource-limited settings, prompt recognition and intervention remain crucial, with pericardiocentesis or subxiphoid pericardiotomy serving as essential modalities for drainage. Empiric antibiotic therapy, initiated promptly and tailored based on culture results, forms the cornerstone of treatment. This discussion underscores the critical importance of comprehensive management strategies for purulent pericarditis, ensuring timely intervention and optimal patient outcomes despite resource constraints.

Conclusion: Managing cardiac tamponade secondary to purulent pericarditis in rural settings requires prompt recognition and intervention. This case report highlights the life-saving potential of bedside echocardiography and emergent pericardiocentesis, even in resource-limited environments. It underscores the need for ongoing efforts to improve access to specialized care and comprehensive management strategies for purulent pericarditis, ensuring optimal outcomes for patients.

Keywords: Cardiac tamponade, purulent pericarditis, rural emergency medicine.

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