

Title: A case of pericardial effusion: Aid of bedside ultrasound in clinical decision making

Authors:

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Background:

In life-threatening conditions, such as cardiac tamponade, we need to recognize signs of impending decompensation in a timely manner. Point of care ultrasound is non-invasive and is readily available, particularly in a resource limited setting. In this case, we present a patient with worsening pericardial effusion and the importance of bedside cardiac ultrasound.

Case presentation:

A 76-year-old male with stage IV adenocarcinoma of the lung was admitted for worsening dysphagia for 3 days and decreased oral intake. He was normotensive but was tachycardic with muffled heart sounds. CT of the chest demonstrated a significant pericardial effusion. Bedside ultrasound to evaluate the extent of pericardial effusion revealed significant circumferential effusion, right systolic atrial collapse, and non-variable IVC, signs of pre-tamponade physiology. Given these findings, cardiology was emergently consulted who recommended transfer to a higher level of care facility. Thus, point of care ultrasound helped in making an immediate decision prior to clinical decompensation of the patient.

Conclusion:

Point of care ultrasound can help in making critical decisions in resource-limited settings. In this patient, a large effusion with pre-tamponade physiology was identified on bedside ultrasound. Early recognition during bedside ultrasound can help reach a diagnosis before clinical deterioration. Our case highlights the importance of point of care ultrasound as a tool to reinforce critical thinking and help expedite rational decision-making processes.