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ST-Elevated Anterior Wall Myocardial Infarction Complicated by Acute Decompensated Heart Failure, Hypovolemic Shock, and Respiratory Acidosis: A Case Report

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Abstract

Background:

ST-elevated myocardial infarction (STEMI) remains a leading cause of mortality worldwide. When complicated by acute decompensated heart failure (ADHF) and hypovolemic shock, early diagnosis and aggressive management are crucial to prevent fatal outcomes.

Case Presentation:

We report the case of a 55-year-old male presenting with severe chest pain radiating to the left arm along with dyspnoea, hypotension, and Diaphoresis. ECG revealed anterior wall ST-segment elevation. Laboratory evaluation showed elevated troponin I, BNP and arterial blood gases suggestive of respiratory acidosis. Chest X ray shows Cardiomegaly + bilateral perihilar infiltrates (“bat-wing” pattern). The patient was diagnosed with anterior wall STEMI complicated by ADHF and hypovolemic shock. He was managed with oxygen support, cautious IV fluid resuscitation, dual antiplatelet therapy, inotropes, and diuretics. Clinical stabilization was achieved, and the patient was subsequently referred for Thrombolysis.

Conclusion:

This case highlights the diagnostic and therapeutic challenges when acute myocardial infarction presents with overlapping cardiogenic and hypovolemic shock components. Prompt recognition and individualized management can significantly improve outcomes.

Keywords: Myocardial infarction, Heart failure, Shock, Respiratory acidosis, Case report.

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