



A Case of Congestive Heart Failure with Gastrointestinal Bleeding and Altered Mental Status

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DOI: 10.47760/ijpsm.2023.v08i05.004

Abstract

Congestive heart failure (CHF) is a common cardiovascular condition associated with significant morbidity and mortality. Complications of CHF such as gastrointestinal bleeding and acute altered mental status pose diagnostic and therapeutic challenges. We present the case of a 75-year-old male with history of hypertension and coronary artery disease who presented with chest pain, vomiting, melena and decreased consciousness. Workup revealed anemia, elevated cardiac markers, evidence of congestive heart failure and subarachnoid hemorrhage. Clinicians should maintain a high index of suspicion for life-threatening complications in CHF patients presenting with atypical manifestations. Prompt diagnosis and optimization of underlying conditions are key to improving outcomes.

Keywords: Cardiovascular diseases, Congestive heart failure, Gastrointestinal hemorrhage, Mental status changes, Subarachnoid hemorrhage.

1. Introduction

Congestive heart failure (CHF) is a complex clinical syndrome characterized by impaired cardiac contractility and reduced cardiac output. It is a major cause of morbidity and mortality worldwide, affecting over 26 million people globally (Braunwald and Bristow, 2000; Smith, 1985). CHF is associated with various complications that can negatively impact prognosis (Omland, 2008). These include pulmonary and systemic embolism, cardiogenic shock, renal failure and neurohormonal disorders (Hosenpud and Greenberg, 2007).

Gastrointestinal (GI) bleeding and altered mental status are less common but serious complications of CHF. GI bleeding occurs in about 5-15% of CHF patients, commonly due to esophageal varices from portal hypertension (McKee et al., 1971). It is associated with increased hospitalizations, healthcare costs and mortality risk in CHF. Altered mental status in CHF can range from mild cognitive dysfunction to serious conditions like stroke, subdural hemorrhage and sepsis. The reported prevalence of altered mental status in CHF ranges from 20-50% (McKee et al., 1971). It is an independent predictor of adverse outcomes, disability and reduced quality of life.

While common complications of CHF such as pulmonary edema and arrhythmias have been well described, data on atypical presentations involving GI bleeding and altered mental status remains limited (Lespérance and Frasure-Smith, 2000). This case highlights the diagnostic and therapeutic challenges posed by these complex manifestations of CHF. A high index of suspicion and prompt diagnosis are needed to optimize management and reduce morbidity in such cases.

The main aim is to report the case of an elderly patient with congestive heart failure who had unusual symptoms of gastrointestinal bleeding and altered mental status. The objectives include highlighting the diagnostic challenges in elderly patients with congestive heart failure, discussing potential causes of the symptoms, emphasizing the importance of prompt diagnosis, identifying areas for improvement in management, and increasing awareness of atypical presentations of congestive heart failure that can lead to higher morbidity and mortality.



2. Case Presentation

A 75-year-old male with a history of hypertension, Percutaneous Transluminal Coronary Angioplasty 6 years ago and smoking presented with chest pain for 2 days, cough, vomiting, melena, loose stools and seizures. On examination, he was lethargic with neck stiffness and had blood-tinged oral secretions. Blood tests revealed anemia and elevated cardiac markers. Head CT showed subarachnoid hemorrhage. Echocardiogram showed ejection fraction of 25% consistent with congestive heart failure.

2.1 Key learning insights:

The key learning insights from this case are:

- Elderly patients with congestive heart failure can present with atypical and complex manifestations, involving multiple organ systems. A broad differential diagnosis should be considered (Fonarow et al., 1997).
- Altered mental status in congestive heart failure patients can be caused by factors like heart failure, subarachnoid hemorrhage, seizures and metabolic abnormalities. A thorough workup is needed to identify the underlying causes (Gradman and Alfayoumi, 2006).
- Gastrointestinal bleeding, though uncommon, can occur in congestive heart failure due to esophageal varices. Screening for varices and anemia should be part of the initial evaluation (Philbin, 1999).
- Comorbidities like hypertension and lifestyle factors like smoking can increase the risk of complications in congestive heart failure patients. Optimizing management of comorbidities is important.(Cheng and Nayar, 2009)

3. Discussion

In hindsight, a few things could have been done differently in the management of this case:

- More prompt evaluation of altered mental status with a head CT and closer monitoring for signs of bleeding since the patient was on anticoagulants (Forrester and Waters, 1978).
- Earlier diagnosis of congestive heart failure and optimization of heart failure medications which may have prevented complications like esophageal varices.
- More aggressive management of risk factors like hypertension and smoking cessation counselling to reduce the risk of heart failure progression and complications (Doughty et al., 2002).
- Close post-discharge follow up to monitor for recurrence of complications, adjust heart failure medications and optimize management of comorbidities.

The key takeaway is that a high index of suspicion, thorough initial workup, prompt diagnosis and optimization of underlying conditions are crucial for improving outcomes in complex cases of congestive heart failure presenting with atypical manifestations.

This case highlights the atypical and complex presentation of congestive heart failure with gastrointestinal bleeding likely from esophageal varices, subarachnoid hemorrhage and altered consciousness. The altered mental status in this patient was likely multifactorial due to heart failure, subarachnoid hemorrhage and seizures.

4. Conclusion

Clinicians should have a high index of suspicion for serious complications in elderly patients with congestive heart failure presenting with vomiting, anemia, altered consciousness and seizures. Prompt diagnosis and management of underlying conditions and complications are critical.

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Prakash Nathaniel Kumar Sarella *et al*, Int. Journal of Pharmaceutical Sciences and Medicine (IJPSM),
Vol.8 Issue. 5, May- 2023, pg. 31-33

ISSN: 2519-9889

Impact Factor: 5.9

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A Brief Author Biography

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