

CASE REPORT **OPEN ACCESS**

A Rare Presentation of Spontaneous Splenic Rupture in a Patient with Infectious Mononucleosis: A Case Report

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Abstract

Spontaneous splenic rupture is an uncommon but potentially life-threatening complication of infectious mononucleosis (IM). Early diagnosis is critical due to the risk of hemorrhagic shock. We present the case of a 24-year-old male who developed acute abdominal pain and hemodynamic instability secondary to splenic rupture without prior trauma. Prompt surgical intervention led to a favorable outcome. This report highlights the importance of clinical suspicion, imaging studies, and timely management.

Introduction

Infectious mononucleosis, caused by the Epstein–Barr virus (EBV), is a common viral illness characterized by fever, pharyngitis, and lymphadenopathy [1]. While most cases are self-limiting, splenic complications—especially rupture—are rare, occurring in approximately 0.1–0.5% of patients [2]. Spontaneous splenic rupture is a medical emergency that may present with nonspecific symptoms, often leading to diagnostic delays [3]. This case emphasizes the need for vigilance and rapid surgical intervention in such scenarios.

Case Report

A previously healthy 24-year-old male presented to the emergency department with sudden-onset severe left upper quadrant abdominal pain radiating to the shoulder,

accompanied by dizziness and hypotension. He had been diagnosed with EBV-related infectious mononucleosis two weeks earlier, confirmed by positive heterophile antibody tests [4]. On examination, his blood pressure was 82/54 mmHg, heart rate was 128 bpm, and he appeared pale and diaphoretic. Abdominal palpation revealed marked tenderness in the left upper quadrant with guarding. Laboratory studies showed hemoglobin of 7.2 g/dL, down from 12.5 g/dL one week earlier, and leukocytosis.

Focused Assessment with Sonography for Trauma (FAST) revealed free intraperitoneal fluid. Contrast-enhanced computed tomography (CT) demonstrated a grade IV splenic laceration with active contrast extravasation and large hemoperitoneum [5]. Emergency laparotomy was performed, confirming splenic rupture; splenectomy was completed successfully.

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Postoperatively, the patient was stabilized with blood transfusions and monitored in the intensive care unit. He was discharged after seven days in good condition and received appropriate vaccinations to prevent post-splenectomy infections [6] [Figure 1].

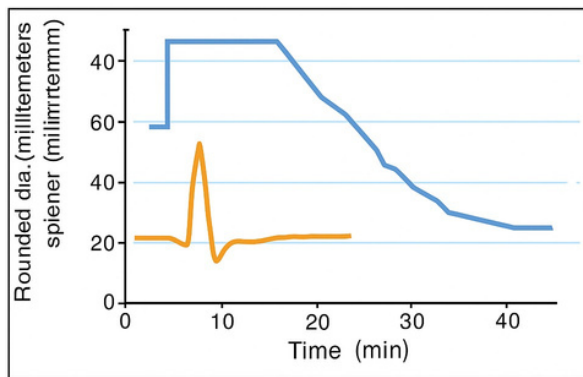


Figure 1: Focused Assessment with Sonography with moniooprus Neum

Discussion

Splenic rupture in IM is rare but carries a mortality rate of up to 9% if not recognized promptly [7]. The mechanism involves splenic enlargement, capsular thinning, and increased friability during infection [8]. Clinicians should maintain a high index of suspicion when IM patients present with acute abdominal pain, hypotension, or referred left shoulder pain (Kehr's sign) [9]. Imaging modalities such as ultrasound and CT are crucial for diagnosis, and surgical intervention remains the treatment of choice in unstable patients.

Conclusion

Spontaneous splenic rupture is a rare yet serious complication of infectious mononucleosis. Rapid recognition, imaging confirmation, and prompt surgical management are essential to prevent mortality. Proactive counseling regarding activity restrictions during IM can reduce risk.

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