

CASE REPORT OPEN ACCESS

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

Anne Alegria^{1*} | Conrad Alderman¹ | LisaAllen² | Joseph James Agee³

¹Department of Microbiology and Immunology, University of North Carolina at Chapel Hill, USA

²Department of Medical Biotechnology, University of Chicago, USA

³Department of Anatomy and Physiology, University of North Carolina at Chapel Hill, USA

***Correspondence:** Anne Alegria, Department of Microbiology and Immunology, University of North Carolina at Chapel Hill, USA, E-mail: anne.alegria@North.edu

Citation: Alegria A (2024) A Rare Presentation of Spontaneous Splenic Rupture in a Patient with Infectious Mononucleosis: A Case Report. *Int. J. Health Sci. Biomed.* 1: 1-3. DOI: 10.5678/IJHSB.2024.404

Received Date: 2024-01-02, **Accepted Date:** 2024-01-24, **Published Date:** 2024-01-31

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.

Citation: Alegria A (2024) A Rare Presentation of Spontaneous Splenic Rupture in a Patient with Infectious Mononucleosis: A Case Report. *Int. J. Health Sci. Biomed.* 1: 1-2. DOI: 10.5678/IJHSB.2024.404

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].

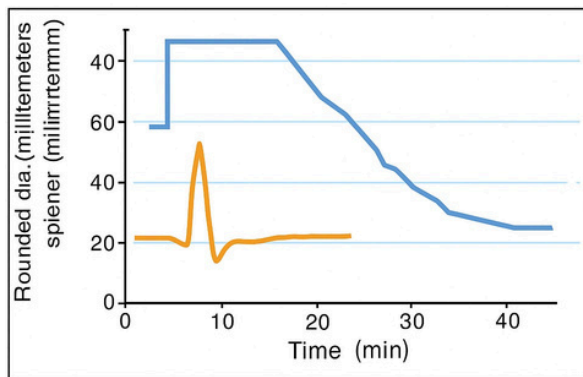


Figure 1: Focused Assessment with Sonography with moniooprus Neum

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.

References

1. Luzuriaga K, Sullivan JL (2010) Infectious mononucleosis. *New England Journal of Medicine* 362: 1993-2000.
2. Hoagland RJ (1952) The clinical manifestations of infectious mononucleosis. *American Journal of Medicine* 13: 193-206.
3. Gayer G (2001) Spontaneous rupture of the spleen: The role of CT in diagnosis and management. *Emerg Radio* 18: 42-46.
4. Evans AS, Niederman JC (1989) Epstein-Barr virus. In: *Principles and Practice of Infectious Diseases*, 4th ed.
5. Schattner A, Adi M (2002) Spontaneous splenic rupture: Forty years of experience. *QJM: An International Journal of Medicine* 95: 755-762.
6. Davies JM (2011) Vaccination guidelines for patients after splenectomy. *BMJ* 342: d1540.
7. Gedik E (2008) Non-traumatic splenic rupture: Report of seven cases and review of the literature. *World Journal of Gastroenterology* 14: 6711-6716.