Splenic Rupture Following Colonoscopy

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Introduction

- Splenic rupture following colonoscopy (SRFC) has an incidence rate of 0.0005-0.017%.
- Most of the cases reported are managed operatively.

Postulates

- Direct Splenic Trauma
- Splenocolic Ligament Traction
- Splenocolic Adhesions Traction

History

- 75-year-old female with no pertinent past medical or surgical history
- Underwent routine colonoscopy 8 hours prior
- Abdominal and left shoulder pain after an episode of syncope

Hospital Course

- Vitals: HR 110, BP 174/73, RR 26
- Abdominal exam: soft, nondistended, no peritoneal signs
- Labs: hemoglobin (hgb) 7.6, transfused 1-unit PRBCs
- CT Abd and Pelvis: Grade III splenic trauma (Fig. 1). No active extravasation

Hospital Day (HD) 2

- Vitals: HR 81, BP 149/74, RR 22
- Physical Exam: unchanged
- Labs: hgb 6.8 , 1U PRBC transfused.
- Repeat CT: overall stable, no active extravasation (Fig. 2)

Discharge

- Hospital day 6, hgb 9.5. Hemodynamically stable. Abdomen exam benign.

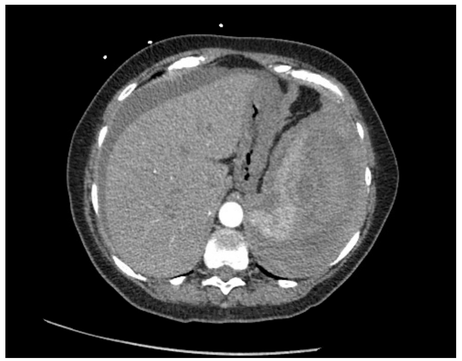

Fig. 1 CT AP on arrival.

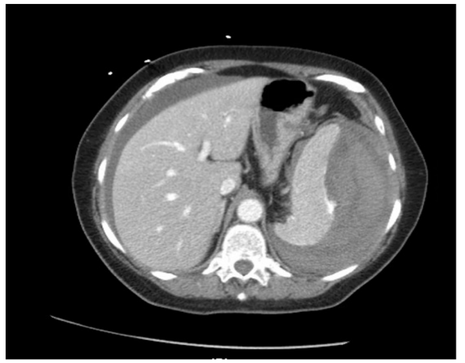

Fig.2 CT AP, HD2.

Discussion

- SRFC often occurs in uncomplicated, easy colonoscopies and in patients with no apparent risk factors.
- Risk factors include previous surgeries, presence of adhesions, diagnostic colonoscopies, biopsies, polypectomies, and female sex.

Conclusion

- Splenic rupture should be considered in patients who present with abdominal pain, syncope, and hypotension following colonoscopy.
- Management guidelines for splenic trauma should be followed once recognized.
- Decision regarding operative vs conservative management should be guided by the patient's clinical status, hemodynamics, and available resources.

References
Ha JF, Minchin D. Splenic injury in colonoscopy: a review. *Int J Surg.* 2009; 7: 424-427. doi:10.1016/j.ijsu.2009.07.010
Michetti CP, Smeltzer E, Fakhry SM. Splenic injury due to colonoscopy: analysis of the world literature, a new case report, and recommendations for management. *Am Surg.* 2010;76(11):1198-1204. doi:10.1177/000313481007601117
Jehangir A, Poudel DR, Masand-Rai A, Donato A. A systematic review of splenic injuries during colonoscopies: evolving trends in presentation and management. *Int J Surg.* 2016; 33: 55-59. doi:10.1016/j.ijsu.2016.07.067
Martin MJ, Rhee P. Nonoperative management of blunt and penetrating abdominal injuries. In: Asensio JA, Trunkey DD, *Current Therapy of Trauma and Surgical Critical Care.* 2nd ed. Elsevier; 2015:326-336