

Introduction

Urgent computed tomography angiography (CTA) is being utilized to evaluate patients presenting with gastrointestinal (GI) bleeding in our Emergency Department.

Purpose

To determine if urgent CTA is helpful in the evaluation of patients with acute GI bleeding in the Emergency Department.

Method

Over a period of 6 months (Nov 2021 - Apr 2022) 101 patients underwent urgent CTA when presenting with symptoms of GI bleeding at Riverside Regional Medical Center (RRMC) ED.

Patient charts were reviewed retrospectively to determine if urgent CTA in this setting was clinically helpful.

The average patient age was 66 (26-99 yrs).

All CTAs were ordered while the patient was being evaluated in the ED.

Analysis

	Positive	Negative	Total
Upper GI : melena, hematemesis	1 (0.3%)	30 (97%)	31
Lower GI: hematochezia	14 (20%)	56 (80%)	70
Total cases	15	86	101

- CTA was positive for active GI bleeding in 15% (15/101) of patients presenting with GI bleeding.
- Of the patients with positive CTA results, 3/15 (20%) underwent interventional radiology (IR) angiogram to stop bleeding.
- 90% (90/101) of the patients were admitted to the hospital.
- Positive CTAs localized to the colon or rectum were mostly diverticular in origin, 70% (9/14).
- One positive CTA for rectal bleeding was due to a bleeding duodenal ulcer at endoscopy.
- Patients who did not undergo IR for a positive CTA (12/15) either had resolution of GI bleeding symptoms or were treated endoscopically.

Conclusion

CTA was not clinically useful in the evaluation of patients with upper GI bleeding symptoms; 97% (30/31) were negative for active bleeding.

Of the patients with a positive CTA for lower GI bleeding 20% underwent IR angiography.

Recommendation

By modifying patient selection, 40 % fewer patients may have undergone CTA imaging for the same clinical benefit in this retrospective study.

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