

Presentation Abstract

Session: Abdominal Pain in Adults

Abstract
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Title: Emergency Physician Interpretation of Capsule Endoscopy: A Video Survey

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Abstract: **Background:** Background: Acute Upper Gastrointestinal (GI) Hemorrhage is a common presentation whose severity ranges from benign to life-threatening and the best tool to risk-stratify the disease is an upper endoscopy (EGD), a procedure performed almost exclusively by gastroenterology physicians. Unfortunately, on-call GI specialists are frequently unavailable and the ED currently lacks a method to visualize suspected acute upper GI hemorrhage. Recent research has shown that video capsule endoscopy is well-tolerated by ED patients and have similar sensitivity and specificity to traditional endoscopy for upper GI hemorrhage. **Objectives:** Objectives: Our goal is to determine if ED physicians with brief training in video capsule endoscopy can detect upper GI bleeding on videos. **Methods:** Methods: A survey study was designed to show 4 examples of video capsule endoscopy to ED physicians. Each physician received training consisting of less than 10 minutes of background information and endoscopy examples in the form of a web-based slide presentation. Following training, the subjects were asked to interpret 4 videos of capsule endoscopy in patients with suspected upper GI hemorrhage for evidence of bleeding or no bleeding. All videos were generated from a prior ED-based study on patients with suspected acute upper GI hemorrhage. **Setting:** ED physicians were recruited at the American College of Emergency Physicians Scientific Assembly in Denver, Colorado in the exhibitor hall on 10/8/2012 to 10/10/2012. Response rate was estimated greater than 70%. **Subjects:** Inclusion criteria for study subjects included being an ED resident or attending and exclusion criteria included formal endoscopy training such as a gastroenterology

fellowship. Analysis: We analyzed the agreement between the ED physicians and expert adjudicated readings for each capsule video. For the outcome categories of blood or no blood detected, the sensitivity and specificity were calculated.

Results: Results: 126 ED physicians were enrolled over 3 days. Compared to expert adjudicated interpretation, the sensitivity to detect bleeding was 94% (STD 0.15) and the specificity was 87% (STD 0.33).

Conclusion: Conclusions: After brief training, ED physicians can interpret video capsule endoscopy to endpoints of gross blood or no blood with high sensitivity and specificity.

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