

The Value of Bleeding Scans in the Evaluation of Acute Lower Gastrointestinal Bleeding

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The Value of Bleeding Scans in the Evaluation of Acute Lower Gastrointestinal Bleeding

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Background

Acute lower gastrointestinal (GI) bleeding has been reported to occur in 20 to 27 cases per 100,000 adults and accounts for one fifth to one third of all hospital admissions for GI bleeding. Bleeding scans have become a common tool in the diagnostic evaluation of these patients. The purpose of this study is to evaluate the role of bleeding scan in the patient with acute lower GI bleed, and to identify those patients more likely to have a positive test.

Methods

A retrospective chart review was performed on all patients admitted for lower GI bleeding between 2007 and 2010 at a large tertiary center. We first identified those patients for whom a bleeding scan was included in the diagnostic workup. Further analysis determined whether these scans were positive or negative and what, if any, interventions were performed. In addition to defined interventions, the charts were also reviewed for units of PRBCs transfused prior to scan, and presence or absence of anticoagulation.

Results

137 patients were identified during the study period. Fifty-one scans were positive (37.2%) and 86 (62.8%) were negative. Patients with a positive bleeding scan were found to have a higher total pre-scan average transfusion requirement (6.32 vs 3.33, $P < 0.001$), as well as a higher transfusion requirement in the 24 hour period preceding the scan (3.65 vs 2.26, $P = 0.021$). Patients on anticoagulant therapy were more likely to have a positive scan (72.5% vs 51.2%, $P = 0.023$). Twenty-nine (56.8%) patients underwent further intervention based on a positive bleeding scan. The rate of operative intervention was 9.5%, which is consistent with previously published data regarding lower GI bleeding.



137 pts underwent bleeding scan

51 positive

86 negative

Avg pre-scan transfusion requirement of 6.32 units

Avg pre-scan transfusion requirement of 3.33 units

29 with some intervention: Angio/OR (rate of operative intervention 9.5%)

22 with no intervention

Conclusion

Positive bleeding scans are associated with a higher pre-procedure transfusion requirement as well as use of anticoagulant medication. These results bring into question the exact role of bleeding scans as they apply to the algorithm associated with the work up of acute lower GI bleeding. With stricter transfusion requirements applied to the ordering of this study, it stands to reason that the predictive value of a study that currently has a sensitivity of approximately fifty percent will be improved.

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