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Detection of ileal bleeding with tagged 99mTc red blood cell scan

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DESCRIPTION

An elderly male who initially presented with a gangrenous left lower extremity and underwent bypass graft surgery was anticoagulated and presented with bloody bowel movements. A tagged 99mTc red blood cell scan was obtained using the Ultratag technique. This examination is recognised as the best screening method to detect active gastrointestinal bleeds.^{1–3} The sensitivity of this nuclear medicine study for detecting active gastrointestinal bleeds is 93%, with a specificity of 95% and an overall accuracy of 94%.⁴ This scan demonstrated activity within a tubular structure in the region of the ileum (figure 1A). This area of activity increased in intensity and moved antegrade towards the ileocecal valve, with a characteristic hook-like appearance (figure 1B). The patient was taken directly to surgery where an arteriovenous malformation was discovered within the ileum as the source of haemorrhage. The patient had an uneventful recovery with complete resolution of the gastrointestinal bleed.

Competing interests None.

Patient consent Not obtained.

REFERENCES

1. **Holder LE.** Radionuclide imaging in the evaluation of acute gastrointestinal bleeding. *Radiographics* 2000;**20**:1153–9.
2. **Zuckier LS.** Acute gastrointestinal bleeding. *Semin Nucl Med* 2003;**33**:297–311.
3. **Miskowiak J,** Nielson S, Munick O. Scintigraphic diagnosis of gastrointestinal bleeding with Tc-labeled blood-pool agents. *Radiology* 1981;**141**:499–504.
4. **Bunker SR,** Lull RJ, Tanasescu DE, *et al.* Scintigraphy of gastrointestinal hemorrhage: superiority of 99mTc red blood cells over 99mTc sulfur colloid. *AJR Am J Roentgenol* 1984;**143**:543–8.

Figure 1 (A) 99mTc tagged red blood cell scan with activity within the mid lower pelvis which moves antegrade towards the right lower quadrant of the abdomen. (B) 99mTc tagged red blood cell scan activity increases in intensity and hooks towards the ileocecal valve.

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