Localization of small bowel bleeding by arterial injection of Tc-99m-labeled RBC

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A 79-year-old man with melena was suspected of having small bowel bleeding because upper and lower endoscopic findings were negative. Technetium-99m-labeled red blood cell (Tc-99m-RBC) scintigraphy was performed by arterial injection of a radiotracer from the superior mesenteric artery (SMA) after angiography. Extravasation was seen in the ileum by scintigraphy although angiography was negative. Scintigram 2 minutes after arterial injection was consistent with the late capillary phase of balloon occluded angiography. This comparison provided a better anatomical distinction. Tc-99m-RBC scintigraphy by arterial injection through the SMA identified the bleeding site in the small bowel more accurately than conventional intravenous Tc-99m-RBC scintigraphy.

Key words: technetium-99m-labeled red blood cells (Tc-99m-RBC) scintigraphy, gastrointestinal bleeding