Goodness gracious great balls of fire

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Thomas O'Donnell passed away prior to publication of this paper.

DESCRIPTION

A 54-year-old caucasian man with a history of hypertension and traumatic splenectomy presented with an enlarged right inguinal lymph node. During the work-up, the patient received a contrast-enhanced CT scan of the chest, abdomen and pelvis that identified an enhancing 3×3.5 cm mass in the region of the left kidney and multiple small nodules throughout the mesentery, above the liver and adjacent to the sigmoid colon. These findings were related to metastatic renal cell carcinoma. A complete metastatic work-up was ordered including a Tc-labelled denatured red blood cell (RBC) scan.

A Tc-labelled heat denatured RBC SPECT scan was performed because the clinician had a high suspicion for splenosis. Splenosis is the dissemination of small splenic foci (1–3 mm) after splenic injury.¹ Most commonly, splenosis occurs near the splenic fossa.² Both Tc-labelled heat denatured RBC SPECT and Tc-sulphur colloid scans can be used to detect splenosis. The former is more specific than the latter because otherwise in normal patients, splenic tissue takes up greater than 90% of damaged RBCs but only 10% of injected sulphur colloid.³

In figure 1, the two largest splenules are on the anterior surface of the liver (figure 1A–C) and in the rectosigmoid region (figure 1G–I). There is no uptake of denatured RBCs in the kidney (figure 1D,F) suggesting that 3×3.5 cm left renal mass seen previously on contrast-enhanced CT was not of splenic origin and represented renal cell carcinoma.

Learning points

- ▶ Splenosis is the dissemination of small foci of splenic tissue usually following splenic trauma.
- ▶ Splenosis may mimic metastatic lesions on contrast-enhanced CT.
- ▶ A Tc-labelled heat denatured RBC SPECT scan can be used to differentiate splenules from primary lesions.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

Figure 1 (A) Transverse Tc-labelled denatured red blood cell (RBC), attenuation CT (B) and fused SPECT CT (C) images of the upper abdomen demonstrating a lesion on the anterior surface of the left lobe of the liver with two additional lesions in the splenic fossa. (D) Transverse Tc-labelled denatured RBC, attenuation CT (E) and fused SPECT CT (F) images scan of the mid-abdomen demonstrating two mesenteric lesions. The CT also shows a right renal cyst and a nodule adjacent to the left kidney. (G) Transverse Tc-labelled denatured RBC, attenuation CT (H) and fused SPECT CT (I) images of the pelvis demonstrating lesions adjacent to the sigmoid colon.

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