Detection of Noncalcified Splenic Hemangioma by Radionuclide Bone Scan

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Incidental accumulation of bone-scanning agents in a noncalcified splenic hemangioma was observed on a bone scan performed for staging carcinoma of the prostate in a 68-yr-old man. This entity may be considered in the gamut of splenic activity on bone scans.


Hemangioma is the most common benign neoplasm of the spleen (1). Nevertheless, reports in the imaging literature have been infrequent. We present an unusual case in which a bone scanning agent was localized in a pathologically proven, noncalcified splenic hemangioma.

FIGURE 1
CT images of the spleen before (A) and after (B) i.v. and oral contrast administration demonstrate a large splenic tumor (T) with intense peripheral enhancement and central nonenhancement. A rim of uninvolved parenchyma is seen anterolaterally (arrows).

CASE REPORT

A 68-yr-old man with prostatic carcinoma underwent a computed tomography (CT) scan of the abdomen and pelvis for staging. Sections through the upper abdomen revealed a large, intrasplenic mass, measuring 11 cm × 12 cm × 13 cm, with inhomogeneous contrast enhancement. An ultrasound examination performed 1 yr earlier, for unrelated indications, has shown an enlarged spleen of mixed echogenicity. An old splenic hemorrhage was assumed and no further workup was undertaken at that time. Six months after the first CT scan, a repeat CT with rapid infusion of i.v. contrast material demonstrated enlargement of the splenic mass to 11 cm × 14 cm × 15 cm. There was intense peripheral enhancement with an irregular nonenhancing center (Fig. 1). A technetium-99m (99mTc) HDP bone scan, performed for evaluation of osseous metastases, revealed abnormal accumulation of activity in the left upper quadrant of the abdomen (Fig. 2). The patient subsequently underwent splenectomy. Pathologic examina-
tumor shown by CT (one-third increase in volume over a 6-mo period) is unusual for splenic hemangiomas (1).

Ultrasonography yielded a nonspecific pattern of inhomogeneous echoes. This is not unexpected since splenic hemangiomas display a variety of sonographic appearances depending upon the histology. Sonography may be helpful in confirming the intrasplenic nature of the lesion (1).

Hemangiomas of the spleen typically appear as focal defects on radiocolloid scans (1) although a focal “hot spot” has been described (5). Increased accumulation of bone scanning agents has been seen in a large hepatic hemangioma (6) and in a densely calcified splenic hemangioma (7). Our case appears to be unique in its depiction of a noncalcified splenic hemangioma on radionuclide bone scan. This entity may be added to the gamut of splenic activity on bone scans.

REFERENCES