Images in surgery

This section features outstanding photographs of clinical materials selected for their educational value or message, or possibly their rarity. The images are accompanied by brief case reports (limit 2 typed pages, 4 references). Our readers are invited to submit items for consideration.

Leiomyosarcoma of the spleen

Anurag T. Daudia, MRCSEd, Stuart Walker, DM FRCS, Bruno Morgan, FRCR, *and* **David M. Lloyd, MD,** *Leicester, England*

From the Department of General Surgery, Leicester Royal Infirmary, Leicester, United Kingdom

A 49-YEAR-OLD-WOMAN was seen with epigastric pain radiating to the left subcostal region 2 weeks after a holiday to India. During the preceding 2 months, she had lost between 5 and 10 kg in weight. She was a vegetarian with a past medical history of depression and hypertension, for which she took sertraline and losartan potassium. She was also on hormone replacement therapy and was completing her antimalarial chemoprophylaxis with chloroquine and proguanil hydrochloride. On examination, she was apyrexial with a pulse of 90 beats per minute and a blood pressure of 120/60 mm Hg. There was no lymphadenopathy. An abdominal examination revealed a large mass arising from beneath the costal margin in the left upper quadrant. The mass was nontender, firm, and regular.

An ultrasound examination of the abdomen reported a markedly abnormal spleen containing large solid masses of varying echogenicity thought to be the result of metastatic deposits. A computed tomography scan of the abdomen (Fig 1) showed a large necrotic tumor of the spleen. The patient underwent a splenectomy by means of a roof top

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Reprint requests: Mr. Anurag Daudia, 98 Evington Rd, Leicester, UK, LE2 1HH.

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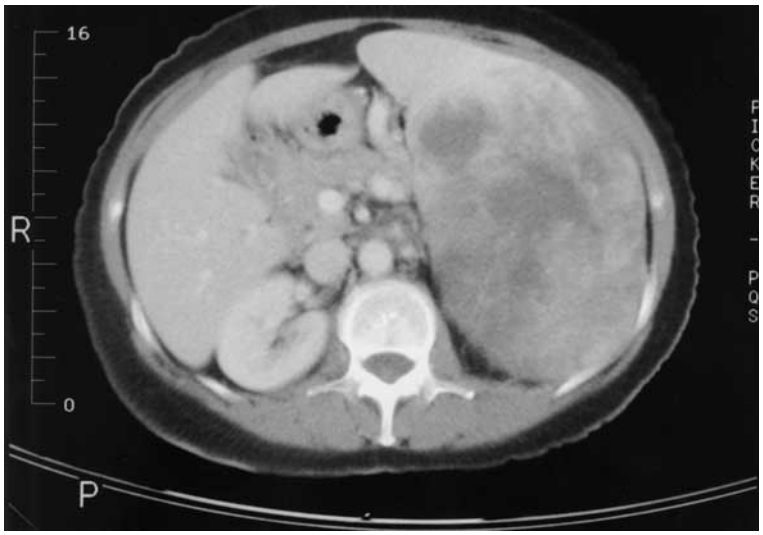

Fig 1. Contrast-enhanced CT of the abdomen showing large necrotic tumor of the spleen.

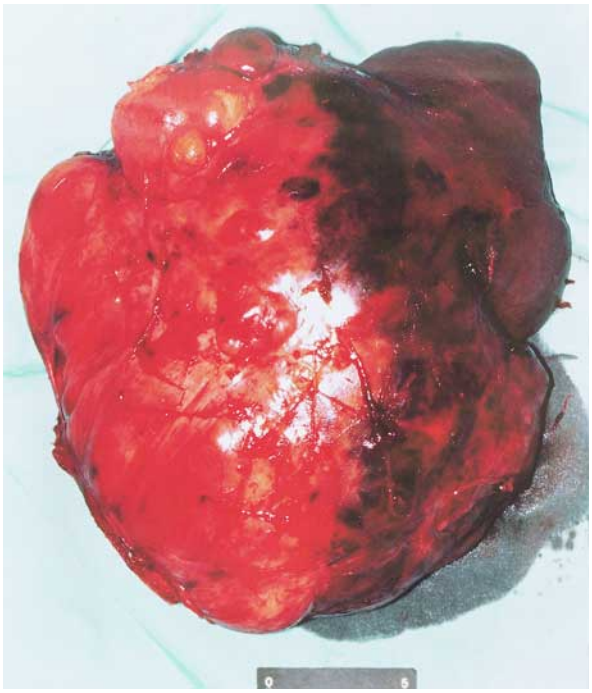

Fig 2. Operative specimen of splenic tumor.

incision (Fig 2). At operation, the tumor could be clearly seen to arise from the spleen. Surrounding organs appeared not to be involved. The patient made a satisfactory recovery and was discharged 7 days later. Histologically, the mass was 15 cm × 21 cm × 8 cm with features of a leiomyosarcoma, confirmed with immunohistochemistry. There was no evidence of invasion of the hilar lymph nodes or vessels. Six months later, she re-presented with local abdominal wall recurrence and liver metastases and is now receiving chemotherapy with possible further operation if there is no further disease progression.

DISCUSSION

Leiomyosarcomas are rare tumors in human beings. Despite an extensive literature search, leiomyosarcoma has not been previously described in the human spleen. In dogs, they do seem to occur more commonly in the spleen. A report found that between 1983 and 1988, there were 16 of 44 cases of leiomyosarcoma occurring in dogs in the spleen.[1] In human beings, they can occur in any organ containing smooth muscle. Leiomyosarcomas account for 10% to 20% of small bowel malignancies and 1% of malignancies of the colon and rectum.[2] Less commonly, they have been described in the genitourinary tract, retroperitoneum, and inferior vena cava.[3]

The natural history of splenic leiomyosarcoma is unknown. The most common site of metastases of leiomyosarcomas is the liver. Other manifestations of tumor spread include pulmonary metastases, mesenteric or omental metastases leading to ascites, retroperitoneal lymphadenopathy, and bone metastases. The most important prognostic factors for primary gastrointestinal leiomyosarcomas have been shown to be histologic grade, local invasiveness, and extent of resection.[4] In our patient, there was no evidence of metastatic spread at the time of operation. A splenectomy was performed as a potentially curative procedure. However, 6 months after the definitive surgical procedure, the patient was shown to have a solitary liver metastasis, which was resected. This suggests splenic leiomyosarcoma may be an aggressive tumor with a poor prognosis.

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