

Title:

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Authors:

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Liver metastases of a malignant solitary fibrous tumor: the important role of immunohistochemistry in this rare entity

Julio Santoyo Villalba¹, Inés Cañas García², Francisco Fernández Segovia³, and Alejandro José Pérez Alonso¹

¹Department of General and Digestive System Surgery. Hospital Universitario Virgen de las Nieves. Granada, Spain. ² Department of General and Digestive System Surgery. Hospital Universitario San Cecilio. Granada, Spain. ³Department of Pathology. Hospital Universitario Virgen de las Nieves. Granada, Spain

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Correspondence: Julio Santoyo Villalba

e-mail: jsantoyovil@gmail.com

Solitary fibrous tumor (SFT) is a rare neoplasm of mesenchymal origin that normally appears in the pleura. However, it has been described in other extrapleural locations (1,2). This tumor is rarely malignant and only a few cases of metastatic SFT have been described (3).

In this rare case, we describe a 57-year-old patient with a urothelial neoplasm of the bladder who underwent a radical cystectomy in 2016. Pathology reported a solitary fibrous tumor (Ki67, 25 %). During follow-up, a liver lesion was observed in segment IV with rapid growth, and a CT scan showed central nodular enhancement that increased significantly in late phases after contrast administration, suggestive of an atypical hemangioma (Fig. 1). The case was presented to the multidisciplinary tumor board and surgical resection was decided due to its rapid growth.

Elective surgery was performed with cholecystectomy and tumorectomy of the lesion in segments IVa-IVb. The postoperative period was satisfactory, and the patient was discharged on the 4th postoperative day.

Pathology reported metastases of a malignant solitary fibrous tumor (Ki67 of 60 %) with lymphovascular invasion and free surgical limits. Immunohistochemistry analysis (Fig. 2) showed that the tumor was positive for CD34, STAT6 and Bcl-2, and negative for actin, caldesmon-H, pancytokeratins and TLE-1.

One year after surgery of the metastases, the patient presented with retroperitoneal recurrence and underwent pelvic exenteration. She is currently cancer-free. Immunohistochemistry plays a fundamental role in the diagnosis of SFT, with the findings described in our case being characteristic for this entity.

Conflicts of interest: the authors declare none.

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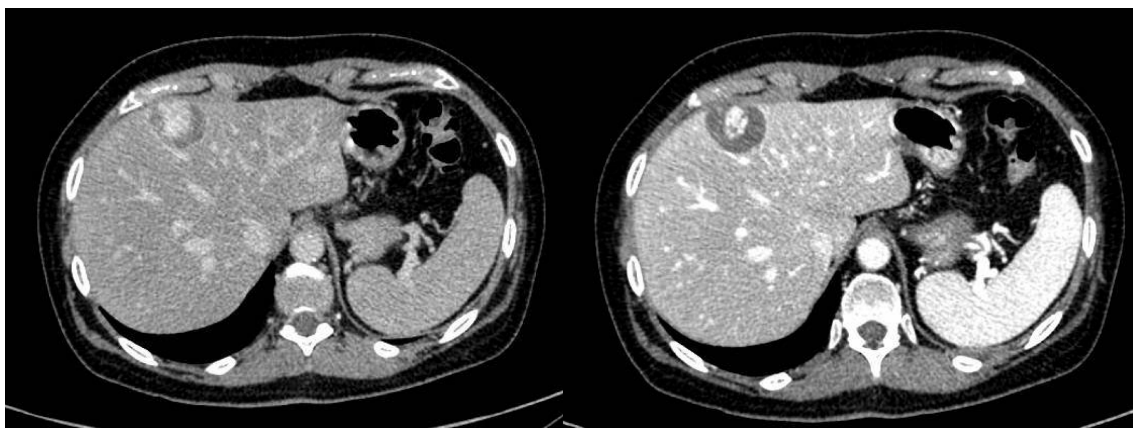


Fig. 1. CT scan showing a liver lesion in segment IV, with central nodular enhancement that increases significantly in late phases after contrast administration.

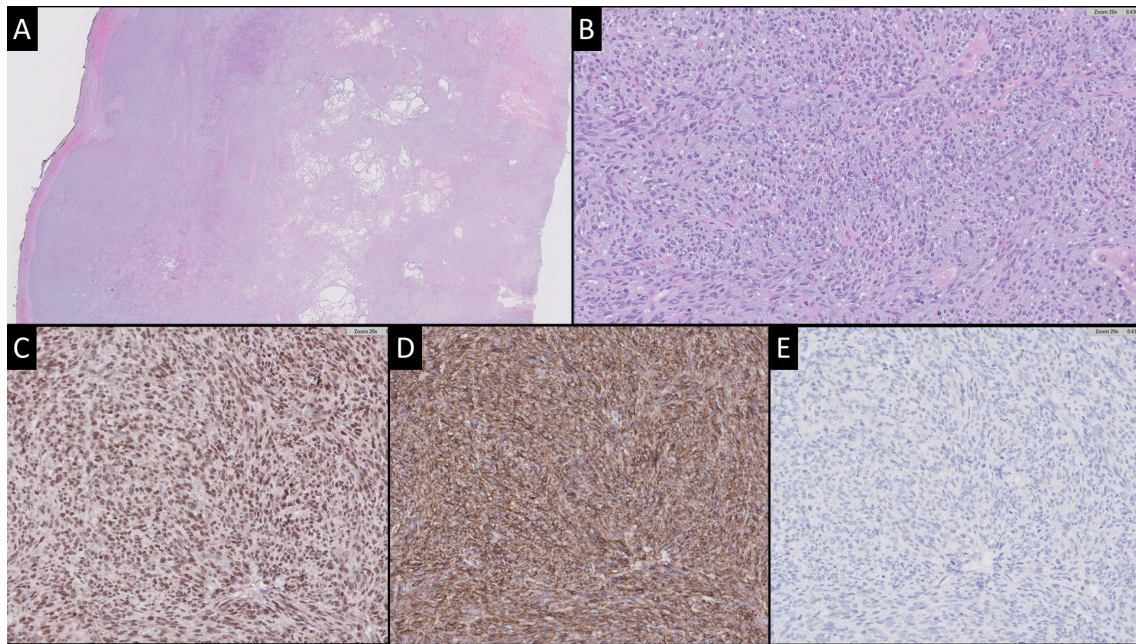


Fig. 2. A. Nodular architecture of the lesion, delimited by a fibrous pseudocapsule, in which cellular areas and areas of cystic degeneration can be distinguished (HE, 10x). B. The cells are arranged in densely-packed bundles separated by fibrous stroma (HE, 200x). Immunohistochemistry shows that the tumor is diffusely positive for STAT6 (C), a typical marker for this tumor, and positive for CD34 (D). The tumor is negative for TLE-1 (E), which rules out monophasic synovial sarcoma (200x).