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

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Text

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 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 CT showed central nodular enhancement that increased significantly in late phases after contrast administration, suggestive of atypical hemangioma (Figure 1). It was presented in the multidisciplinary tumor board and due to its rapid growth, surgical resection was decided.

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

The pathology reported metastases of a malignant solitary fibrous tumor (Ki67 of 60%) with lymphovascular invasion and free surgical limits. With immunohistochemistry (Figure 2), 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 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.

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Figures

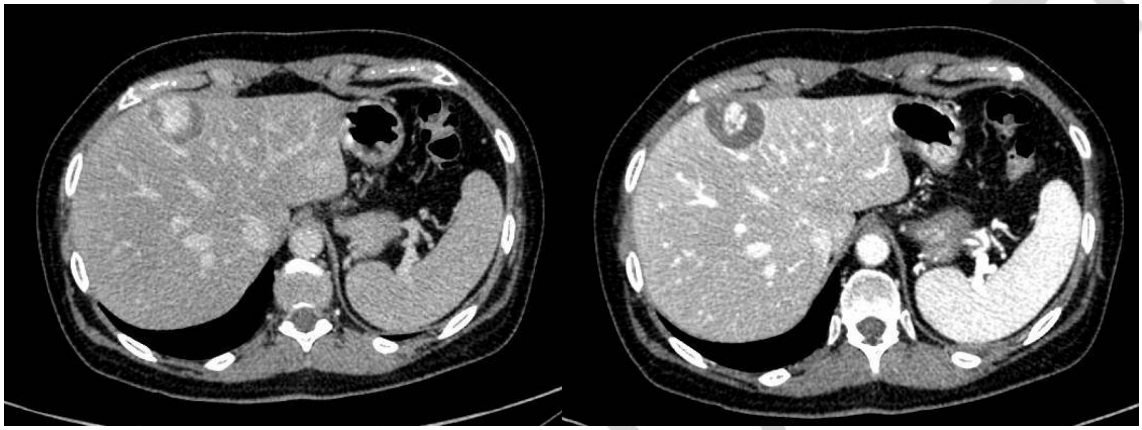

Figure 1. CT showing liver lesion in segment IV showing central nodular enhancement that increases significantly in late phases after contrast administration

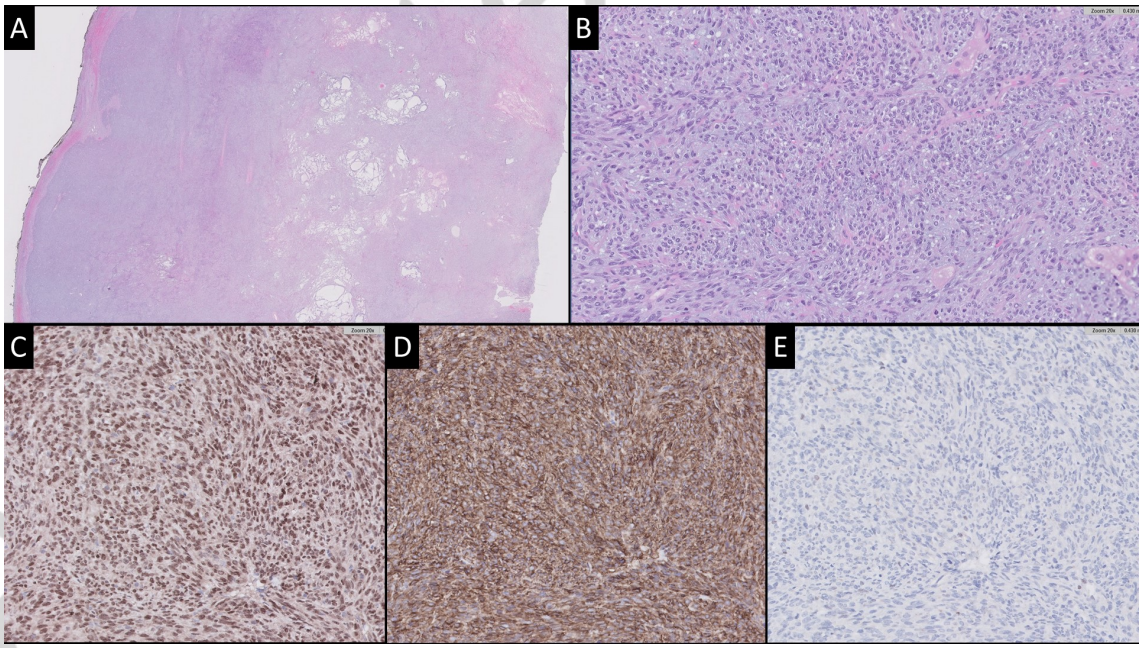

Figure 2. (**A**). Nodular architecture of the lesion, delimited by a fibrous pseudocapsule, in which cellular areas and areas of cystic degeneration can be distinguished (HE 10x). (**B**). The cells are arranged in densely-packed bundles separated by fibrous stroma (HE

200x). With immunohistochemistry, the tumor is diffusely positive for STAT6 (**C**), a typical marker for this tumor, and for CD34 (**D**). The tumor is negative for TLE-1 (**E**), which rules out monophasic synovial sarcoma (200x).