

## CASE REPORT

# PRIMARY SYNOVIAL SARCOMA OF THE GASTROINTESTINAL TRACT: A CASE REPORT

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## ABSTRACT

Synovial sarcoma is a malignant neoplasm of soft tissues, traditionally known for its biphasic histological pattern and relatively high rate of occurrence near the joints. Primary gastric synovial sarcomas are extremely rare<sup>3, 4</sup>. The present report shows a case of a 58-year-old female patient diagnosed with primary Biphasic Synovial Sarcoma of the stomach that has presented satisfactory evolution after surgical treatment. The patient is being followed up with Oncological Surgery at HC-UFG and has had no evidence of illness for 5 years.

**KEYWORDS: STOMACH; MALIGNANT NEOPLASM; SYNOVIAL SARCOMA; GASTRIC NEOPLASM, GASTRIC SARCOMA.**

## INTRODUCTION

Synovial sarcoma is a malignant neoplasm of soft tissues, traditionally known for its biphasic histological pattern and relatively high rate of occurrence near the joints. The nomenclature is, however, an improper term, as there was no evidence of differentiation in relation to the synovium and the tumor can occur in almost any part of the body<sup>1</sup>. Primary gastric synovial sarcomas are extremely rare<sup>3, 4</sup>. Correct and early diagnosis is essential for proper treatment and prognosis prediction. Here, we report a case of primary synovial sarcoma that appears in the stomach.

## CASE REPORT

A 58-year-old female patient was admitted to the Hospital das Clínicas of the Federal University of Goiás (HC-UFG) with a history of abdominal pain for 2 months. During clinical investigation, Total Abdominal Tomography with Contrast (CT) showed lesion in the distal third of the stomach compatible with neoplasia, having interrogated Gastrointestinal Stromal Tumor (GIST) and Leiomyoma. Upper Digestive Endoscopy (EDA), in turn, identified subepithelial antrum lesion (suggestive of GIST) and Sakita A1 gastric ulcer. A mucosal biopsy was performed and histological examination revealed mild chronic gastritis with a focus on mucosal erosion, a positive search for *H. pylori* and failed to rule out the clinical hypothesis of GIST. Therefore, the patient underwent subtotal gastrectomy with lymphadenectomy at D2. The morphological and

immunohistochemical findings of the surgical specimen showed Biphasic Synovial Sarcoma and 42 free lymph nodes. The patient is being followed up with Oncological Surgery at HC-UFG and has had no evidence of illness for 5 years.

## DISCUSSION

Synovial sarcoma is a malignant mesenchymal tumor that tends to appear in the limbs, especially in the vicinity of the knee joints<sup>1</sup>, although it has been found in a wide variety of locations, including the internal organs. A synovial differentiation tumor was mistakenly considered, probably due to the typically biphasic growth pattern, in addition to its usual just-articular location<sup>5</sup>. Immunohistochemically, synovial sarcomas are often focally reactive to cytokeratins and / or epithelial membrane antigen, <sup>1</sup> showing epithelial differentiation. When a pathologist deals with a spindle cell tumor arising in the gastrointestinal tract, GISTs usually come to mind first. Generally, it is possible to differentiate a GIST from synovial sarcoma, since c-KIT (CD117) is expressed in most GISTs, although c-KIT also stains mast cells, which tend to be numerous in synovial sarcomas. Fusiform cell leiomyosarcomas are characterized by a greater degree of pleomorphism, and a panel of smooth muscle and melanocytic markers. Morphology and immunohistochemistry often distinguish these mimics from synovial sarcomas, but molecular genetic studies may be necessary to confirm them in difficult cases. To date, there are few reports of primary synovial sarcomas in the gas-

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trointestinal tract in the literature. Among these, the majority of primary gastric tumors were of the single-phase fibrous type, and most of them were confirmed with RT-PCR or fluorescence in situ hybridization. These gastrointestinal synovial sarcomas have only been reported in recent years, probably reflecting the fact that a broader application of immunohistochemistry and molecular techniques allows for the identification of these unusually localized tumors that may have been misdiagnosed as other spindle cell tumors in the past. Thus, it is concluded that primary synovial sarcoma of the gastrointestinal tract is rare and prone to diagnostic errors. When facing a malignant spindle cell tumor of the gastrointestinal tract, synovial sarcoma should not be neglected when listing differential diagnoses. The use of molecular techniques, such as RT-PCR, to detect pathognomonic translocation is the key to the correct diagnosis in doubtful cases.

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