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Clinical and Morphological Characteristics of Gastrointestinal Stromal Tumor

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Abstract

Introduction: Gastrointestinal stromal tumors (GIST) are a rare form of cancer located within the gastrointestinal (GI) tract, defined as tumors with spindle, epithelioid, or occasionally pleomorphic cells. They originate in the interstitial cells of Cajal, with the function of "pacemaker" of gastro-intestinal motility. Their behavior is dictated by changes in the c-kit/PDGFRA gene, which is often highlighted by immunolabeling.

Methods: We report the clinical, macroscopic, microscopic, and immunohistochemical characteristics of consecutive patients diagnosed with GIST who underwent surgical removal of the tumor in our department between 2008-2022.

Results: We included 20 consecutive patients. The presentation was considered a surgical emergency requiring immediate surgical intervention in most subjects. The most common localization is the small intestine (n=9, 45%), followed by the stomach (n=7, 35%), colon (n=3, 15%), and peritoneum (n=1, n=5%). Histologically, the tumors were predominantly mixed (n=10, 50%) followed by spindle type (n=8, 40%) and epithelioid - 2 cases (10%).

Conclusion: The clinical presentation of GISTs remains heterogeneous, and the diagnosis is predominantly postsurgical, using complex immunohistochemistry analysis. The tumor size and number of mitoses are strongly associated with the long-term prognosis.

Key words: stromal tumor, gastrointestinal, Cajal cell