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**DIAGNOSTIC AND PROGNOSTIC VALUE
OF TUMORSPECIFIC MARKERS (*CD117*,
DOG1, *CD34*, *PDGFR- α*), INDICATORS
OF MUSCLE (*SMA*, *MSA*, *desmin*) AND FAT
(*S100*) DIFFERENTIATION, EXPRESSION
OF *Ki-67*, *p16*, *p21* IN GASTROINTESTINAL
STROMAL TUMORS**

ABSTRACT. Background. Verification of gastrointestinal stromal tumors and determination of their malignancy potential remain still relevant. **Objective.** To identify relationships between clinical, histological and immunomorphological (*CD117*, *DOG1*, *CD34*, *PDGFR- α* , *SMA*, *MSA*, *desmin*, *S100*, *Ki-67*, *p16*, *p21*) characteristics of gastrointestinal stromal tumors. **Methods.** Our study included 50 gastrointestinal stromal tumors, which were divided into subgroups according to clinical (localization), morphological (histological features, morphological variation, the number of mitosis) characteristics depending on the presence of the expression of above mentioned markers. Statistical analysis of data included nonparametric tests. **Results.** Expression of *CD117*, *DOG1*, *CD34*, *PDGFR- α* , *SMA*, *desmin*, *p16*, *p21* was specified in 94%, 90%, 76%, 61,1%, 24%, 50%, 46,6%, and 47% of cases, respectively. *MSA*, *S100* positive tumors were revealed in 4% and 8% of all cases, and did not let us to divide them into subgroups. The one third of all cases had high expression of *Ki-67*. **Conclusion.** *Ki-67* is a useful marker for determination of malignancy potential of GIST and significantly correlated with the number of mitosis and cellularity. *Ki-67* expression is associated with the presence of *p16* staining, it indicates the possibility of using these markers to define malignancy potential of GIST. Markers (*CD117*, *DOG1*, *CD34*, *PDGFR α* , *SMA*, *p21*) did not have prognostic value and were unrelated. There was relationship between the presence of *PDGFR α* staining and character of *CD117* expression. *CD117*, *DOG1* were highly sensitive markers, *CD34*, *PDGFR α* were useful markers during verification of GIST, but were less sensitive. Markers *SMA*, *desmin*, *MSA*, *S100* are important for the diagnostic process.

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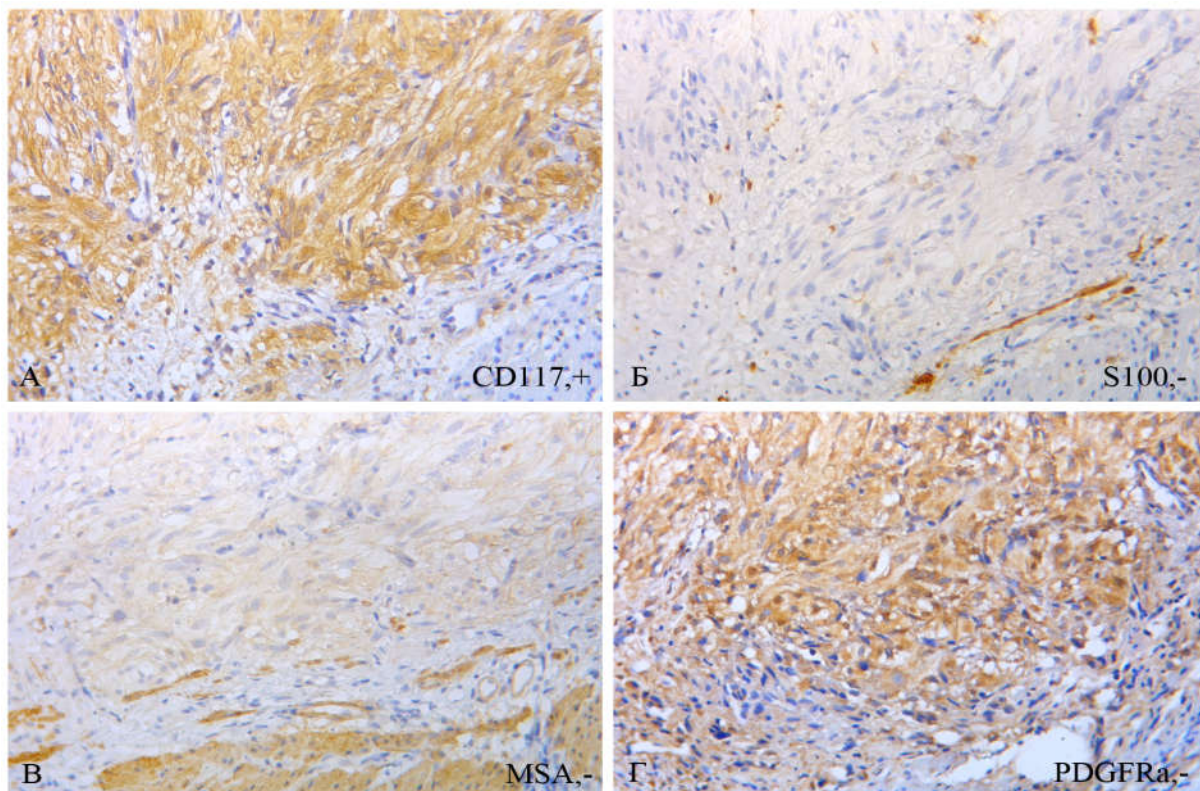


Fig. 1. Gastrointestinal stromal tumor. A. Cytoplasmic and membrane staining in tumor cells by CD117 marker. Б. Negative cytoplasmic and membrane reaction of tumor cells with S100 marker. B. Negative cytoplasmic and membrane reaction of tumor cells with MSA marker. Г. Cytoplasmic and membrane staining in tumor cells by PDGFR α marker. Immunohistochemical method, additional staining with Mayer's hematoxylin $\times 400$.

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