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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 gastroinestinal 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, PDGFRα, SMA, p21) did not have prognostic value and were unrelated. There was relationship between the presence of PDGFRα staining and character of CD117 expression. CD117, DOG1 were highly sensitive markers, CD34, PDGFRα 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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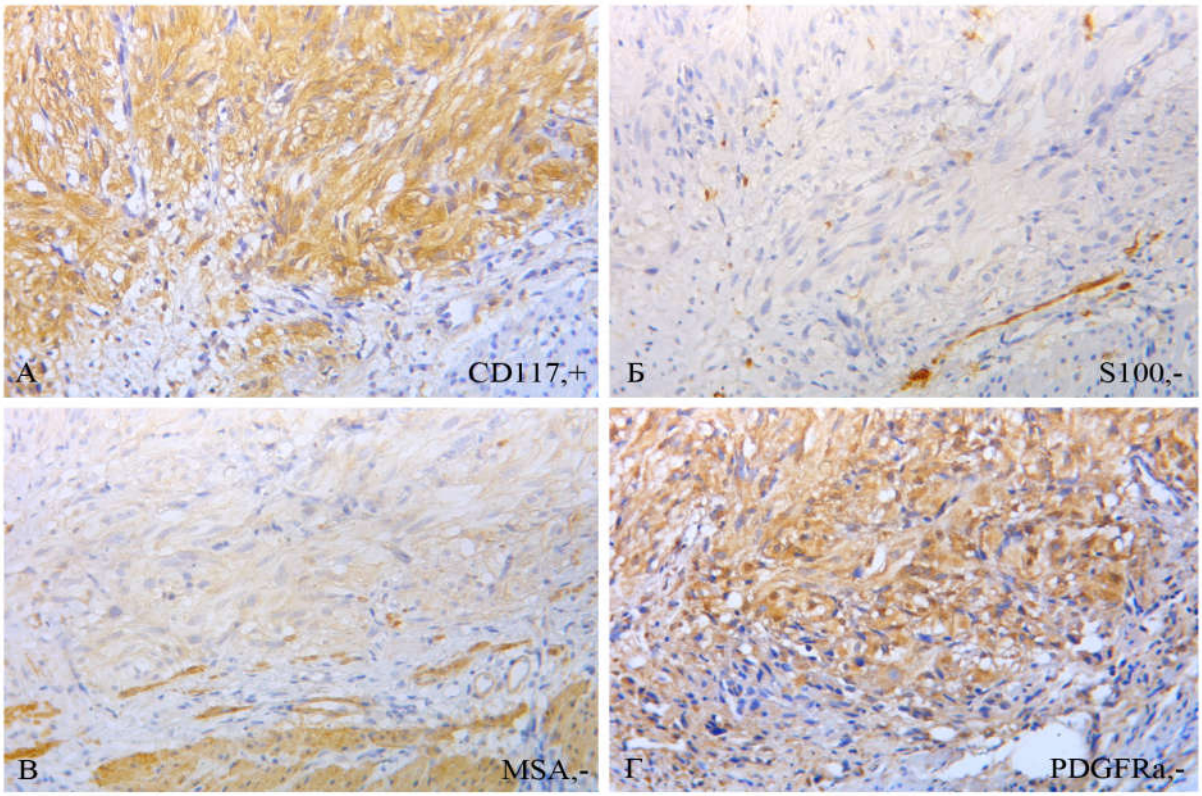

Fig. 1. Gastrointestinal stromal tumor. A. Cytoplasmic and membrane staining in tumor cells by CD117 marker. Б. Negative cytoplasmic and membrane reaction of tumor cells with S100 marker. B. Negative cytoplasmic and membrane reaction of tumor cells with MSA marker. Г. Cytoplasmic and membrane staining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

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