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Gastrointestinal stromal tumor and mitosis, pay attention

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Abstract

The difference between stages Ⅰ and Ⅲ of gastric gastrointestinal stromal tumor depends principally on the number of mitosis. According with TNM classification, the presence in the tumor of high mitotic rate determines the upgrading. Many studies exposed different count techniques in evaluating the number of mitosis. An international standardized method to assess mitotic rate is needed.

Key words: Gastrointestinal stromal tumor; Mitosis; Classification; Gastroesophageal; Enucleation

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TO THE EDITOR

We read with great interest the comment to our article[1] by Peparini *et al*[2]. They posed the attention on the new TNM (Tumor, Node, Metastasis) classification[3] which included the gastrointestinal stromal tumors (GISTs). They particularly stressed the attention on the staging differences and the consequential therapeutic approach of the Ⅰ and Ⅲa stage of gastric GIST. The difference between these two stages depends principally on the number of mitosis. In fact, according with TNM classification, the presence in the tumor of high mitotic rate determines the upgrading, with a major risk and the proposed necessity of a more aggressive therapeutical behaviour. High mitotic rate for TNM classification is defined as more than 5 mitosis in 50 high-power fields (HPF) using the 40X magnification objective (total area 5 square mm in 50 fields)[3]. TNM classification states that stringent criteria have to be followed when defining mitosis: pyknotic or dyskaryotic nuclei must not be counted as mitoses[3].

On one hand we agree with the comment of Peparini *et al*[2] about the necessity to be carefull in deciding which surgical and target therapeutic strategy should be adopted, on the other hand however we consider mandatory to stress the possible bias in evaluating the number of mitosis.

Many studies in fact exposed different count techniques in evaluating the number of mitosis, which could lead to a different staging and consequentially to a different surgical and target therapeutic approach for the same lesion[4]. The number of different staging systems[4] and the uncertain behaviour of the GISTs, especially those of the upper gastrointestinal tract, which seem to be less aggressive than those of the lower tract, left uncertain the best treatment for the gasto-esophageal junction GISTs. In fact, it has been demonstrated as the gastric GISTs differentiated one from each other depending on the localization (gastoesophageal junction and body *vs* distal antrum)[5]. Moreover high intratumoral discrepancies in mitotic rate have been reported[6].

The anatomical site and the peculiar charachteristics of the tumor impose to be extremely careful to the risk-

benefit balace. Lastly, the urgent need for an international standardized method to assess mitotic rate which define the spectrum of mitotic figures, the total field area of 50 HPF and the best tumor area to be used for the count is emphasized from the present interesting correspondence.

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