Utility of neoadjuvant therapy in rectal GIST

**Key words:** GIST. Rectum. Imatinib. Neoadjuvant. Local resection.


**Dear Editor,**

A neoadjuvant therapy approach with tyrosine kinase inhibitors (TKI) in cases of rectal gastrointestinal stromal tumors (GIST) allows a surgical rescue of a high percentage of patients that initially were not candidates for aggressive surgery.

**Case report**

A 49-year-old man presented with a tumor located 3 cm to 1 cm from the anal verge. A GIST was confirmed by a biopsy (CD-117: +/DOG1: +). Magnetic resonance imaging (MRI) showed a tumor in the right anterolateral wall of the rectum. $^{18}$F-FDG PET/CT showed an abnormal uptake of the lesion with a maximum standardized uptake value (SUV) of 9 (Fig. 1A). Neoadjuvant treatment with 400 mg/day of imatinib was initiated. Three months later an $^{18}$F-FDG PET/CT was performed with the absence of pathological uptake (Fig. 1B). A transanal rectal resection was performed. Pathological anatomy identified tumor cells which were positive for CD-117 and DOG-1 and viable tumor (< 5%) with a tumor free surgical margin (Fig. 2). Eighteen months later, the patient is free of disease.
Discussion

Neoadjuvant therapy decreases tumor size and improves tumor resectability, R0 resection rates and the possibility of organ preservation (1,2). Rectal GIST surgery aims to achieve an R0 resection with minimal morbidity and mortality. In this regard, it is possible to opt for radical surgery, which would reduce the rate of recurrence and thus increase R0 resections but with a high morbidity and mortality (3). In contrast, a local surgery reduces the rate of complications but increases the percentage of incomplete resections and recurrence. Therefore, the current trend is to use imatinib (4,5) in the neoadjuvant setting in order to decrease tumor size and facilitate a local resection with minimal morbidity and mortality and a high R0 resection rate.

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References


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