

The appropriate width of the tumour-free margin in surgery of phyllodes tumour of the

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SUMMARY Based on our own observations and literature data, including NCCN guidelines, we present the view of the optimal surgical treatment of the Phyllodes Tumour of the breast (PT). PT treatment requires removal of the breast tumor with a margin of at least 1 cm. Nonetheless, the last several months have brought several significant publications, which suggest that a margin of 1 mm, is quite sufficient to prevent the local recurrence of PT. Therefore, we decided, present the results of these studies. The treatment of choice in all patients with PT is excision of the breast tumor, maintaining the surgical free margin from tumor infiltration. In the group of patients with malignant (possibly borderline) form of PT, when the margin is less than 1 mm, frequent and rigorous follow up are to be considered to detect possible local recurrence, reoperation to obtain a tumor-free margin of at least 1mm or adjuvant radiotherapy, although its value is still the subject of discussion and controversy.

Key words: phyllodes tumor, malignanat, radiotherapy

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INTRODUCTION

The data from the literature showed that the treatment of choice in patients with a Phyllodes Tumour of the breast (PT) is a breast-conserving surgery wide excision with a free margin of at least 1 cm of healthy tissue [1-3]. Currently, more and more researchers consider that the 1 mm free margin is sufficient to prevent local recurrence of PT [1, 4-13] and in recent months have suggested that the width of the tumor-free margin may be even less than 1mm, if the excision is made within healthy tissue margins [1, 4, 5, 8-14].

Yom et al. presented an analysis of a group of 285 patients with PT, treated surgically (67% benign, 21.4%-borderline, 11.6%-malignant) and demonstrated that in the group of patients with a margin of 0.1 mm, the percentage of local recurrences (4.2%) was similar to the group of patients with a margin of 1 cm [4].

Moutte et al. presented a group of 76 patients with PT (67 patients with malignant type and 9 patients with borderline type) of which in 89% of patients, the surgical free margin was below 10 mm, in 7.1%-below 1 mm, and in 7 (9%) patients the surgical margin was positive. None of the patients received adjuvant treatment. Local recurrence was found only in 3 (4%) patients, including 2 of 7 patients with infiltration of the surgical margin. The occurrence of local recurrence did not affect the overall survival of the patients and the reoperated patients were cured. In conclusion, the authors of the publication recommend only systematic and precise follow-up in patients with benign and borderline PT, regardless of the state of the surgical margin [5]. Similar opinion presented by Moo et al., based on the analysis of a group of 216 patients with a benign form of PT [8].

Shaaban and Barthelmes presented an analysis of 12 studies that involved 1652 patients with a benign form of PT. The analysis showed no statistically significant difference in the frequency of local recurrences between the group of patients in which the surgical margin was 10 mm (13/159-7.9% of patients) and patients with 1 mm margin (12/211-5.7% of patients). However, the presence of cancer in the surgical margins caused that the number of local recurrences was more than twice as high as in the group with a margin of 1 mm (90/696-12.9% of patients). In conclusion, the authors believe that reoperation is generally recommended in this group of patients. However, at

the same time, they draw attention to the fact that in 87% of patients with the presence of tumor in the surgical margin, there was no local recurrence. Hence they allow the possibility of taking the “watch and wait” strategy after microscopically non-radffical (R1) surgery [7].

Tremblay-LeMay et al. analyzed a group of 114 patients with PT (benign form-71.1% patients, borderline-17.5% patients, malignant-11.4% patients). Only one patient had a margin free of tumor above 1 cm and of the remaining patients, 48.7% had a positive margin, 18.4% was equal to or less than 1 mm. Nevertheless, the authors showed a very low recurrence rate-4.3% (5/114 patients). Researchers believe that patients with PT can be effectively treated with a margin of 1 mm but suggest the need to obtain a free surgical margin [6].

It should be emphasized that the reports of the last few years show that the frequency of local recurrences in patients with PT is relatively low. In the benign form of PT, it varies from 1.9% to 6.2% [4-6, 8, 14], in the borderline form-from 4.5% to 11.5% [4, 6, 15, 16], in the malignant form-from 7.7% to 18.7% [4, 6, 16]. It is also important that early detection and surgical treatment of local recurrence does not affect the overall survival of patients with PT [3].

In the 2019 year, we presented the analysis of the treatment results of 340 patients with PT, from a single cancer center. In this group the tumor-free resection margin was <1.0 cm (0.2-0.8 cm) in 32 (9.4%) patients. Twelve of these patients (four

patients with borderline and 8 with malignant PT) received adjuvant radiotherapy. A dose of 5.040 cGy in 28 fractions over 5 weeks was delivered to the entire breast using a tangential technique. This was followed by a boost to the tumor bed with 2 cm margins (1.000 cGy in 5 fractions). None of these 12 patients had a local recurrence. In the remaining group of 20 patients, local recurrence was observed in 1 (3,1%) patient with benign PT who was re-operated (local excision) and survived 5 years with no evidence of disease. In conclusion, the benign PT is successfully treated with surgery alone, in borderline and malignant type, with a tumor-free margin <1 cm (0.3-0.8 cm), we recommend adjuvant radiotherapy [14].

In summary, the treatment of choice in all patients with PT is excision of the breast tumor, maintaining the surgical free margin from tumor infiltration. In the group of patients with malignant (possibly borderline) form of PT, when the margin is less than 1 mm, frequent and rigorous follow up are to be considered to detect possible local recurrence, reoperation to obtain a tumor-free margin of at least 1mm or adjuvant radiotherapy, although its value is still the subject of discussion and controversy [3, 6, 9-11, 16].

CONFLICT OF INTEREST

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