

**Table 1** Comparison between some characteristics of the Munich method and peripheral methods<sup>a</sup>

	Munich method	Peripheral methods (Mohs, Tübingen, muffin)
Observation of the tumor core	Yes	No
Tumor analysis	Yes	No (only if there is tumor involvement of the surgical border)
Evaluation of the cutaneous tumor site <sup>b</sup>	Yes	No
Observation of the tumor-surgical margin relationship	Yes	No
Analysis of tumor cytology (e.g., mitotic figures)	Yes	No (only if there is tumor involvement of the surgical border)
Assessment of perineural involvement	Easier	More difficult
Number of glass slides	Greater	Smaller

<sup>a</sup> Even if a previous biopsy of the affected area is performed, there may be a discrepancy between the data from the incisional biopsy and the posterior excision due to sampling, as pointed out by Portela et al.<sup>5</sup>

<sup>b</sup> Important in ill-defined tumors or scars.

The author of this correspondence highlights the importance of broadening the discussion of the technical and laboratory details of the various forms of micrographic surgery, including the implications of each technique for the clinical and oncological data.

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## Histopathological aspects of the inclusion of surgical material in micrographic surgery using the Munich method and its comparison with horizontal histological sections<sup>☆,☆☆</sup>

Dear Editor,

The Munich method for micrographic surgery is technically distinct from the Mohs technique, both regarding the surgery



## Author's contributions

Sandro Simão Corrêa Filho: Approval of the final version of the manuscript; conception and planning of the study; drafting and editing of the manuscript; critical review of the literature; critical review of the manuscript.

## Conflicts of interest

None declared.

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itself and laboratory processing, as well as the microscopic analysis. The surgical specimen is usually examined without division, as long as its size allows for full inclusion.<sup>1</sup>

In the Munich technique, originally described in 1992 and published in Germany in 1995, the surgical specimen is frozen, usually outside the cryostat, by a direct stream of CO<sub>2</sub> and with the use of distilled water, and then inserted in the cryostat to be sliced.<sup>2</sup> However, we have, similarly to other colleagues, frozen the specimen directly in the cryostat with the use of OCT, as is customary in the intraoperative technique not only for skin, but for several other tissues.<sup>3,4</sup>

Presented as a "new way of assessing debulking," from the technical and laboratory standpoint, the method described by Portela et al.<sup>5</sup> with horizontal sections, is identical to the Munich technique, despite starting from the surface to the depth and the fact that the interval and the thickness of sections are different, which may vary due to the peculiarities of each tissue. Likewise, the observation

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of the tumor and its relationship with the surgical margins is one of the most striking features of the Munich method.

Moreover, the aforementioned authors confuse the surgical margin with the surgical border, stating that the Mohs method, which is peripheral, examines the surgical margin and not the hypothetical surgical border (*i.e.*, the section that is deposited on the microscope slide after the sectioning of the block).

While perhaps not identical, the Munich technique should at least have been referred to by the authors as the original idea, since it has been widely described in the literature, including in *Anais Brasileiros de Dermatologia*.

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Arthur César Farah Ferreira: Critical review of the literature; critical review of the manuscript.

## Conflicts of interest

None declared.

## On variations in micrographic surgery and the use of horizontal histological sections in the evaluation of the surgical margin – Reply<sup>☆</sup>



*Dear Editor,*

In their article, Portela et al. proposed a new way of evaluating the product of tumor enucleation using horizontal histological sections.<sup>1</sup>

Apart from the discussion on the different techniques of micrographic surgery, including the Munich technique,<sup>2</sup> the similarity between the technique presented by Portela et al. and the Munich technique relates to the way the tissue is sectioned for histological analysis, *i.e.*, in horizontal or parallel sections to the skin surface. However, several differences can be listed. Enucleation or debulking is not necessarily performed through a vertical incision. Most of the time, the incision is tangential to the skin surface. The sections of the surgical specimen, as proposed by Portela et al., are

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made from the surface to the bottom, contrary to what is done in the Munich technique. This is justified, as the main objective of the histological evaluation by horizontal sections of the enucleated tumor is to allow a better analysis of the histological subtype and the tumor site. Therefore, it is more logical that the sections start on the surface, the level where the tumor is already present. The subsequent assessment of the surgical borders and margins in the study by Portela et al. was carried out as recommended in Mohs micrographic surgery.

It is worth mentioning that horizontal histological sections, also termed transverse sections, have been used for decades in dermatopathology, such as in hair follicle diseases and in the correlation between dermatoscopy, confocal reflectance microscopy, and histopathology.<sup>3–5</sup>

Therefore, the study did not aim to describe a new micrographic surgery technique, since Mohs micrographic surgery was used in the peripheral control of the margins. Nevertheless, the debate on the different types of micrographic surgery is of great importance, due to its growing diffusion and the progressive increase in the number of micrographic surgeons in Brazil.

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