

Reviewer's code: 03465354

Malignant sweat gland tumors are rare and this case will raise awareness of this type of lesion during patient diagnoses.

We thank you for your review and your time.

Reviewer's code: 00503686

As you pointed out, the surgical term has been changed from wide excision to excision. After the operation, we considered additional surgery. However, the lesion was well separated from the surrounding tissue, the specimen margin was clear, and no additional lesions or pathological axillary lymph nodes were found in the PET-CT conducted after the diagnosis of malignancy. Therefore, further surgery was not performed. Instead radiation therapy was done on the excision site.

Reviewer's code: 00097860

1a. The lesion was a superficially palpable lesion with a protrusion and only ultrasound was requested.

1b. As mentioned in the manuscript, the patient underwent breast augmentation in the past. MRI was performed to check the breast implants, and additional finding of breast lesion was also revealed. Even though there was an enhancing solid portion of the mass on MRI, it was overlooked as a benign lesion. If we had considered the possibility of a malignant lesion, we might have used a different surgical approach. Ultrasonography is useful as a primary modality, while MRI is better for characterizing the features of tumors with superior resolution. While MRI can certainly assist in a diagnosis, it is inappropriate to apply MRI by interval growth of a mass alone. It would be necessary to apply MRI, if there is a suspicious or malignant finding of lesion in ultrasound.

1c. Although there have been some reports where FNAB was used in the diagnosis of sweat gland tumors, excision is considered a more useful method to diagnose and treat at the same time. In most reports, excision was performed as a primary diagnosis and treatment method.

1d. Malignant sweat gland tumors are rare and treatment has not been established yet. Therefore, we decided that it would be suitable to establish treatment based on the pathology, imaging, and surgical findings. Radiation therapy was also performed on the surgical site. Other studies have reported the use of radiation therapy or chemotherapy as additional treatments.

References

1. Soni A, Bansal N, Kaushal V, Chauhan AK. Current management approach to hidradenocarcinoma: a comprehensive review of the literature. *Ecancermedicalscience* 2015;19:517.
2. Shu K, Xiao Q, Büchele F, Zhang S, Jiang W, Lei T. Diagnosis and treatment of clear cell hidradenocarcinoma of the scalp. *J Huazhong Univ Sci Technolog Med Sci* 2012;32:931-936.

1e. No additional lesions or lymph node metastasis were detected in the preoperative ultrasound and MRI, or postoperative PET-CT. Pathologically, the tumor was identified as a lesion confined to the mass. Therefore, no further surgery, including axillary lymph node dissection, was performed. No recurrence or metastasis was found in the follow-up examination.

We thank you for your precise review and comments.

Reviewer's code: 02573214

We thank you for taking the time to review the manuscript.

Reviewer's code: 02544209

The lesion was a cutaneous lesion that was well separated from the breast tissue and breast tissue was not included in the specimen. Although the remaining benign tissue was small, the final diagnosis could be made based on the behavior of the mass and immunohistochemical results, as well as morphologic analysis. The photomicrographs of the mass were chosen to clearly show the lesions. Therefore, there was no problem confirming the diagnosis. Since this was an unusual case, it was necessary to give a thorough explanation in the discussion, including the origin of the lesion; its clinical, pathological, and radiologic features; and patient treatment.

We thank you for your review and comments.

Reviewer's code: 02682232

There have not been many reports of sweat gland tumors in the breast, especially malignant sweat gland tumors or the malignant transformation of benign sweat gland tumors. This was also the first case for us. Thus, we are not able to statistically analyze the pathology or imaging results, or the treatment methods. However, sharing the experience of this case might help diagnose and manage similar lesions in the future.

We thank you for taking the time to review our manuscript.