Neuroendocrinology Letters Volume 42 No. 3 2021
ISSN: 0172-780X; ISSN-L: 0172-780X; Electronic/Online ISSN: 2354-4716
Web of Knowledge / Web of Science: Neuroendocrinol Lett
Pub Med / Medline: Neuro Endocrinol Lett

Comedo-like skin metastases in cervical carcinoma

Erik Kozubík[1], Terézia Pribulová[1], Tomáš Rokos[1], Erik Kúdela[1], Pavol Slávik[2], Kamil Biringer[1]

1 Department of Gynecology and Obstetrics, Jessenius Faculty of Medicine and University Hospital, Martin, Slovakia
2 Department of Pathological Anatomy, Jessenius Faculty of Medicine and University Hospital Martin, Slovakia

Correspondence to: Kamil Biringer, M.D., Ph.D., Assoc. Prof.
Department of Gynecology and Obstetrics, Jessenius Faculty of Medicine and University Hospital Martin, Kollárova 2, 036 01, Martin, Slovakia
TEL.: +421/43 4203 242; E-MAIL: kamil.biringer@uniba.sk

Submitted: 2021-05-13 Accepted: 2021-06-06 Published online: 2021-06-06

Key words: **Cervical cancer; Skin; Metastases; Hematogenous spread; Comedo-like lesions**

Neuroendocrinol Lett 2021; **42**(3):157–159 **PMID:** 34279858 NEL420321C04

Abstract

Cervical cancer (CC) is one of the most common cancers of the female reproductive system. In advanced stages, it might lead to metastases via hematogenous or lymphatic spread. Patients with hematogenous metastases are less common with a higher risk of death. This article focuses on a case of CC with comedo-like spinocellular skin metastases. These structures, typical for basaloid squamous cell carcinoma, represent an uncommon and extremely rare finding even in advanced CC and are associated with a poor prognosis.

INTRODUCTION

The incidence of cervical cancer (CC) cutaneous metastases is estimated to be around 1.3% (Imachi *et al.* 1993). Many morphologic findings, including nodules, plaques, or inflammatory telangiectasias, have been described. (Alrefaie *et al.* 2019; Basu & Mukherjee, 2013; Benoulaid *et al.* 2016; Derouane & Honhon, 2020; Imachi *et al.* 1993; Katiyar *et al.* 2019; Malfetano, 1986; Richmond *et al.* 2013; Shimizu *et al.* 1983) Comedo-like openings, typically seen in seborrheic keratosis or melanoma, were observed in our case. (Minagawa, 2017)

CASE DESCRIPTION

A 65-year-old female was admitted with profuse vaginal bleeding lasting for two weeks, lower abdominal pain, cachexia, and dyspnoea. We found non-specific nodules on both lower extremities, the groin, and abdominal areas (Figure 1). She did not report any personal or family history of skin malignancy. Since we had not received any epidemic history, first of all, we tried to rule out an infectious cause of the lesions. They were similar to nodules typical for tuberculosis, lupus vulgaris, or sarcoidosis. Chest X-ray findings were negative. We found a completely tumour-thickened anterior vaginal wall. Vaginal stenosis and nodules of the clitoris were also present. A biopsy of the nodules was performed, and histopathological examination confirmed comedo-like advanced spinocellular CC with foci of central necrosis (Figure 2). Immunohistochemistry revealed HPV (p16) positivity and the presence of Ki67 proliferative activity in 50% of tumour cells (Figure 3). The patient started to develop dysphagia, and mineral disbalance worsened with severe hypercalcemia. Unfortunately, she died 5 days later.

DISCUSSION

CC is diagnosed in 600,000 females and is responsible for approximately 300,000 deaths worldwide annually. It is the sixth most common cancer and the second most common one among young

CASE REPORT

Fig. 1. Skin nodules on the left lower extremity

women. The typical hematogenous metastases of any tumour can be found in the liver, lungs, and bones. The incidence of cutaneous metastases from solid tumours is 0.7-9%. (Imachi *et al.* 1993) In women, the most common primary tumours metastasizing to the skin are related to the breast, colon, lung, and ovarian cancer. (Handa *et al.* 2017) Skin metastases from CC are rare, even in the advanced stages. The incidence does not exceed 2%. (Imachi *et al.* 1993) To our knowledge, only a few cases have been reported worldwide.

The abdominal wall and vulva are the most common sites for CC skin metastases, followed by the anterior chest wall, lower extremities, and scalp. (Imachi *et al.* 1993, Handa *et al.* 2017) In our case, they were mainly localized in the clitoris, lower extremities, and abdominal areas. The mechanism behind this type of metastasis is still unknown. One possible cause could be attributed to the retrograde spread of the tumour secondary to lymphatic obstruction. In a few reports, skin metastases were found to appear after oncological treatment. (Chen *et al.* 2014) Prognosis in patients at IV B stage of CC is very poor and five-year survival is 5.3-20%. The mean survival time is 16 months. (Jayant *et al.* 2016, Usami *et al.* 2016) This case was staged as an advanced stage of CC and is consistent with the above-mentioned findings.

Comedo-like openings, seen in the histopathological examination, correspond to epidermal invaginations filled with keratin. The nuclei may be quite pleomorphic with high mitotic counts. Geographical comedo-like necrosis and pleomorphic nuclei are frequent co-variables. These structures are commonly found in basaloid squamous cell carcinoma or seborrheic keratosis, but their presence is not limited to this type of lesion and should be considered in the differential diagnosis. (Minagawa, 2017)

CONCLUSION

We have described a rare case of CC that manifested as comedo-like spinocellular skin metastases. This finding makes the diagnosis of CC challenging for both gynaecologists and dermatologists. We report this case to remind clinicians to consider the diagnosis of CC in the evaluation of patients with non-specific skin nodules.

ACKNOWLEDGEMENT

This publication was created thanks to support under the Operational Programme Integrated Infrastructure for the project: Integrative strategy in development of personalized medicine of selected malignant tumours and its impact on quality of life, IMTS: 313011V446, co-financed by the European Regional Development Fund.

REFERENCES

1 Alrefaie SI, Alshamrani HM, Abduljabbar MH, Hariri JO (2019). Skin metastasis from squamous cell carcinoma of the cervix to the lower extremities: Case report and review of the literature. J Family Med Prim Care. **8**(10): 3443–3446.

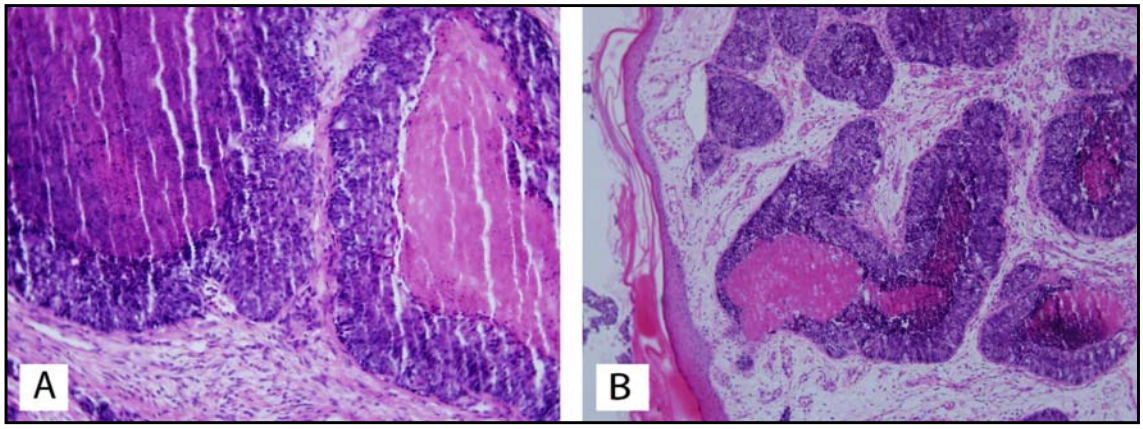

Fig. 2. Biopsy from the clitoris (A) and skin (B) metastases – proliferative cellular activity with central necrosis of „comedo-like" type (hematoxylin-eosin, magn. 200x (A), 100x (B))

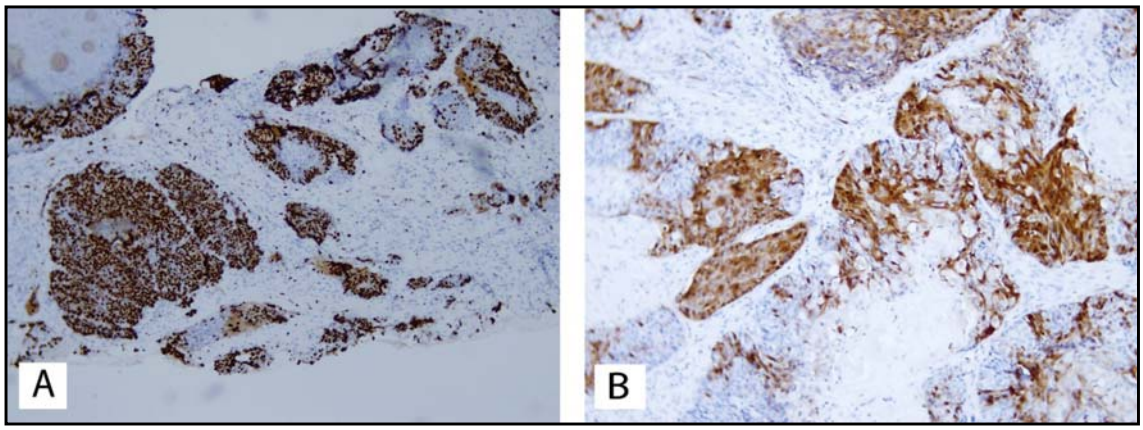

Fig. 3. Skin biopsy – (A) Ki67 nuclear immunostaining (magn. 100x), (B) p16 immunostaining (magn. 200x)

2 Basu B, Mukherjee S (2013). Cutaneous metastasis in cancer of the uterine cervix: A case report and review of the literature. J Turk Ger Gynecol Assos. **14**(3): 174–7.
3 Benoulaid M, Elkacemi H, Bourhafour I, Khalil J, Elmajjaoui S, Khannoussi B, et al (2016). Skin metastases of cervical cancer: two case reports and review of the literature. J Med Case Rep. **10**(1): 265.
4 Derouane F, Honhon B (2020). Cutaneous metastasis in cervix cancer. Rev Med Liege. **75**(1): 4–5.
5 Handa U, Kundu R, Dimri K (2017). Cutaneous Metastasis: A Study of 138 Cases Diagnosed by Fine-Needle Aspiration Cytology. Acta Cytol. **61**(1): 47–54.
6 Chen YY, Wang HCH, Tsai CHW, Yu HM, Lee CHS, Chang H, et al (2014). An isolated chest wall metastasis from cervical squamous cell carcinoma after 19 years of disease-free survival and no local recurrence: A case report and review of literature. Journal of Medical Sciences (Taiwan). **34**: 272–276.
7 Imachi M, Tsukamoto N, Kinoshita S, Nakano H (1993). Skin metastasis from carcinoma of the uterine cervix. Gynecol Oncol. **48**(3): 349–54.
8 Jayant K, Sankaranarayanan R, Thorat RV, et al (2016). Improved Survival of Cervical Cancer Patients in a Screened Population in Rural India. Asian Pac J Cancer Prev. **17**(11): 4837–4844.
9 Katiyar V, Araujo T, Majeed N, Ree N, Gupta S (2019). Multiple recurrences from cervical cancer presenting as skin metastasis of different morphologies. Gynecol Oncol Rep. **28**: 61.
10 Malfetano JH (1986). Skin metastasis from cervical carcinoma: A fatal event. Gynecol Oncol. **24**: 177–8.
11 Minagawa A (2017). Dermoscopy–pathology relationship in seborrheic keratosis. J Dermatol. **44**: 518–524.
12 Pertzborn S, Buekers TE, Sood AK (2020). Hematogenous Skin Metastases from Cervical Cancer at Primary Presentation. Gynecologic Oncology. **76**(3): 416–417.
13 Richmond NA, Viera MH, Velazquez-Vega J, Kerdel FA (2013). Cutaneous metastasis of cervical adenocarcinoma to the vulva. Dermatol Online J. **19**(5): 18172.
14 Shimizu I, Hayashi S, Uehara M, Nakayama S (1983). Cutaneous metastases to the scalp from carcinoma of the uterine cervix. Arch Dermatol. **119**: 275–6.
15 Usami T, Takahashi A, Matoda M, Okamoto S, Kondo E, Kanao H, Umayahara K, Takeshima N (2016). Review of Treatment and Prognosis of Stage IVB Cervical Carcinoma. Int J Gynecol Cancer. **26**(7): 1239–45.