

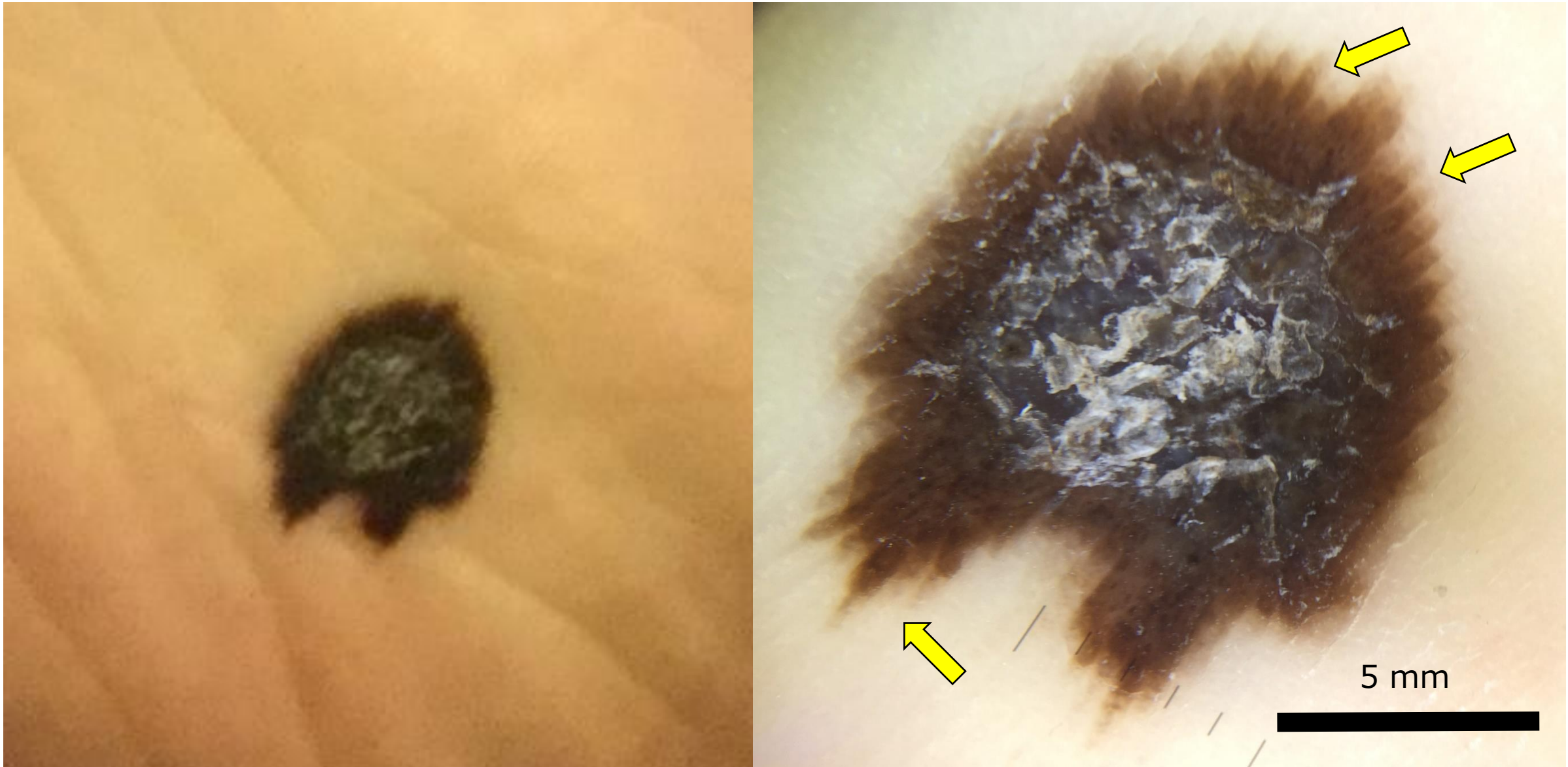
# Acral syringotropic melanoma *in situ*

Acral syringotropic melanoma with eccrine duct hyperplasia was seen in the right sole of an 80 y-o woman. She had a history of hypertension, diabetes mellitus, hyperlipidemia, Alzheimer's dementia, and right femoral head replacement. The 15 x 10 mm-sized, irregular-shaped pigmented macule was removed surgically. No nodal swelling was noted. Microscopically, the pigmented melanoma cells were distributed not only in the basal epidermis but also in the cutaneous sweat gland duct. The melanoma cells were positive for HMB45, melan A, S-100 protein, bcl-2, vimentin, CD5 and SOX10, but negative for CKs and adipophilin. Ki-67 labeling was around 10%. In the dermis, myoepithelial cells immunoreactive for cytokeratin 34 $\beta$ E12, CK5/6 and p40 surrounded the intraductally spreading melanoma cells, with ductal lumina located in the center. Invasive growth was absent. The surgical margins were negative (pTis cN0 cM0: pStage 0). The patient did not receive adjuvant chemotherapy, and she is doing well eight months after surgery. It has been shown that sweat glands maintain melanocyte-melanoma precursors in an immature state in the niche, and explain the preferential distribution of early melanoma cells around sweat glands in human volar skin.

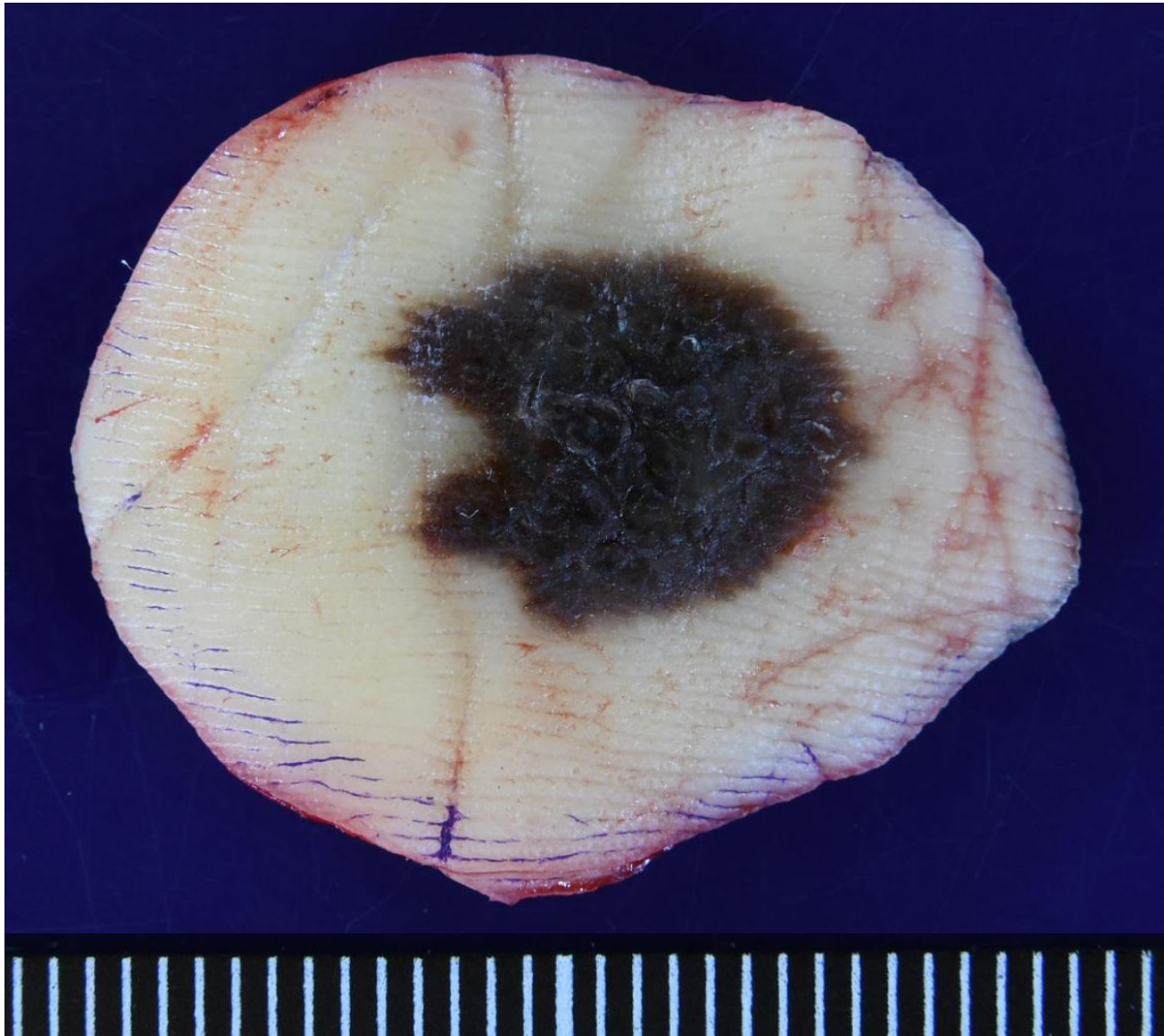
Ref.-1: Kubba F, et al. Acral syringotropic melanomas with florid eccrine duct hyperplasia, a report of two cases. *Histopathology*. 2017 Jan;70(2):316-317. doi: 10.1111/his.13055

Ref.-2: Tachibana M, et al. Acral syringotropic melanoma *in situ* with eccrine duct hyperplasia. *Arch Clin Med Case Rep* 2021; 5(2): 355-360. doi: 10.26502/acmcr.96550366

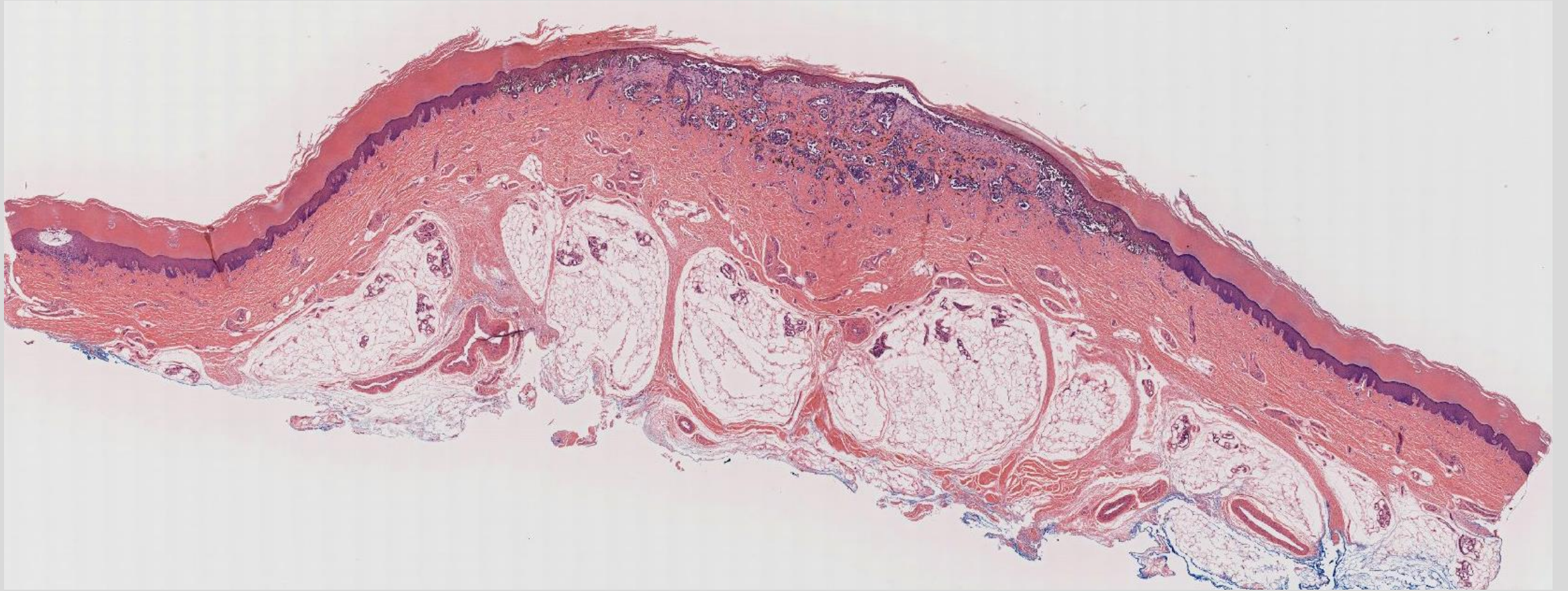
Ref.-3: Okamoto N, et al. A melanocyte–melanoma precursor niche in sweat glands of volar skin. *Pigment Cell Melanoma Res* 2014; 27: 1039-1050. doi: 10.1111/pcmr.12297



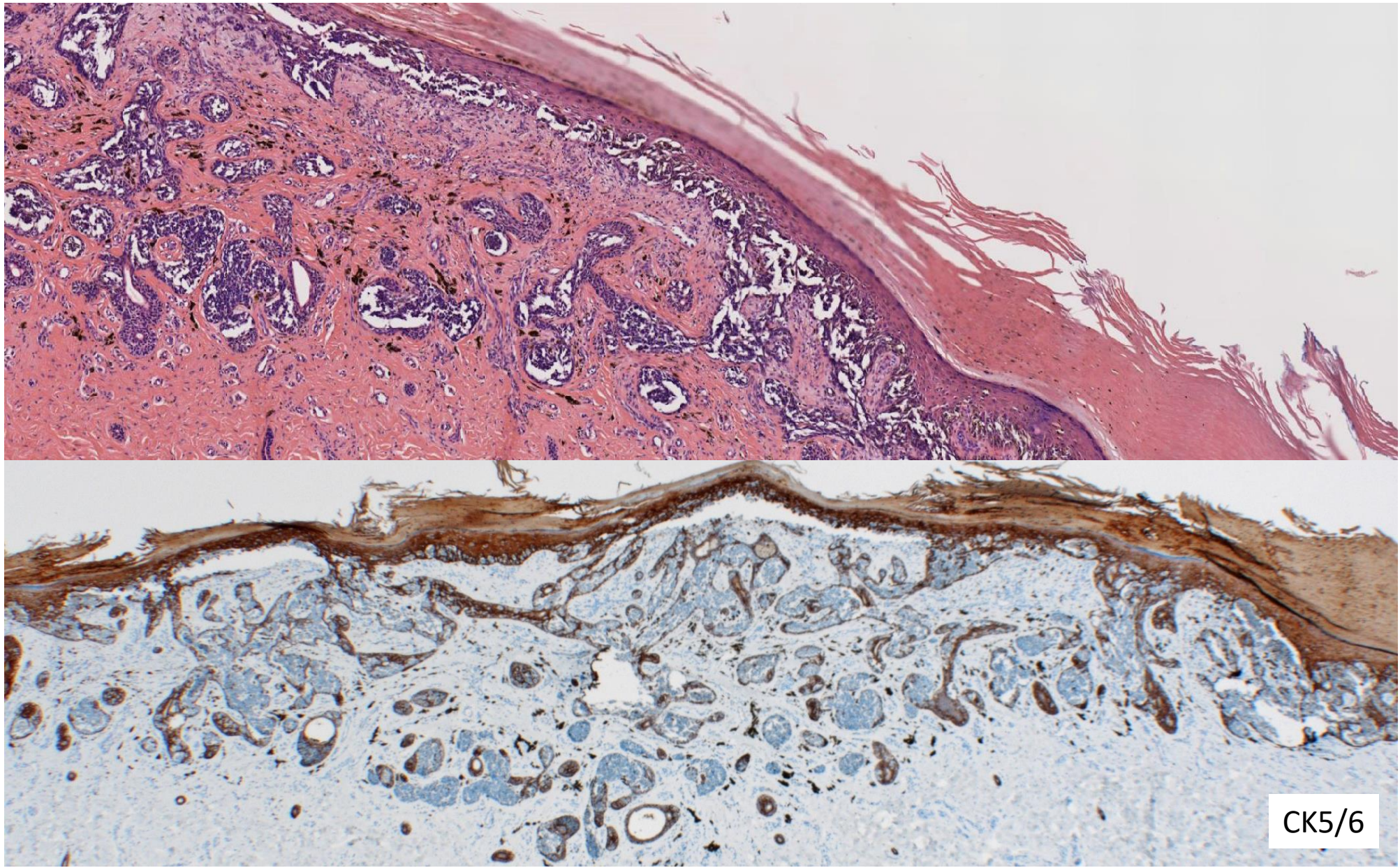
Acral syringotropic melanoma *in situ*. The irregular-shaped pigmented lesion on the sole of an 80 y-o woman measures 15 x 10 mm, and parallel ridges are seen by dermoscopic observation (arrows).



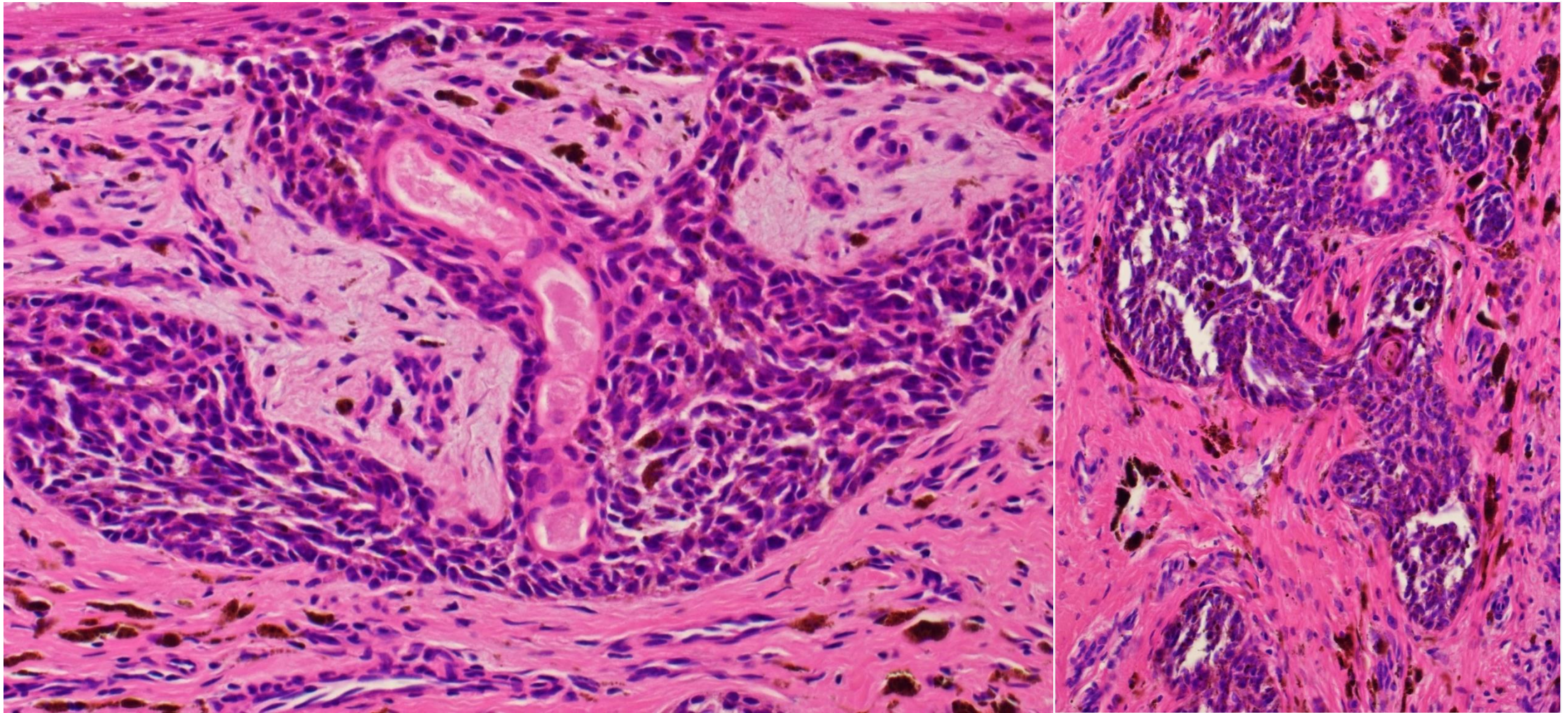
Acral syringotropic melanoma *in situ*. The surgical specimen of the 15 x 10 mm pigmented lesion of the sole skin of an 80 y-o woman. Complete removal was done.



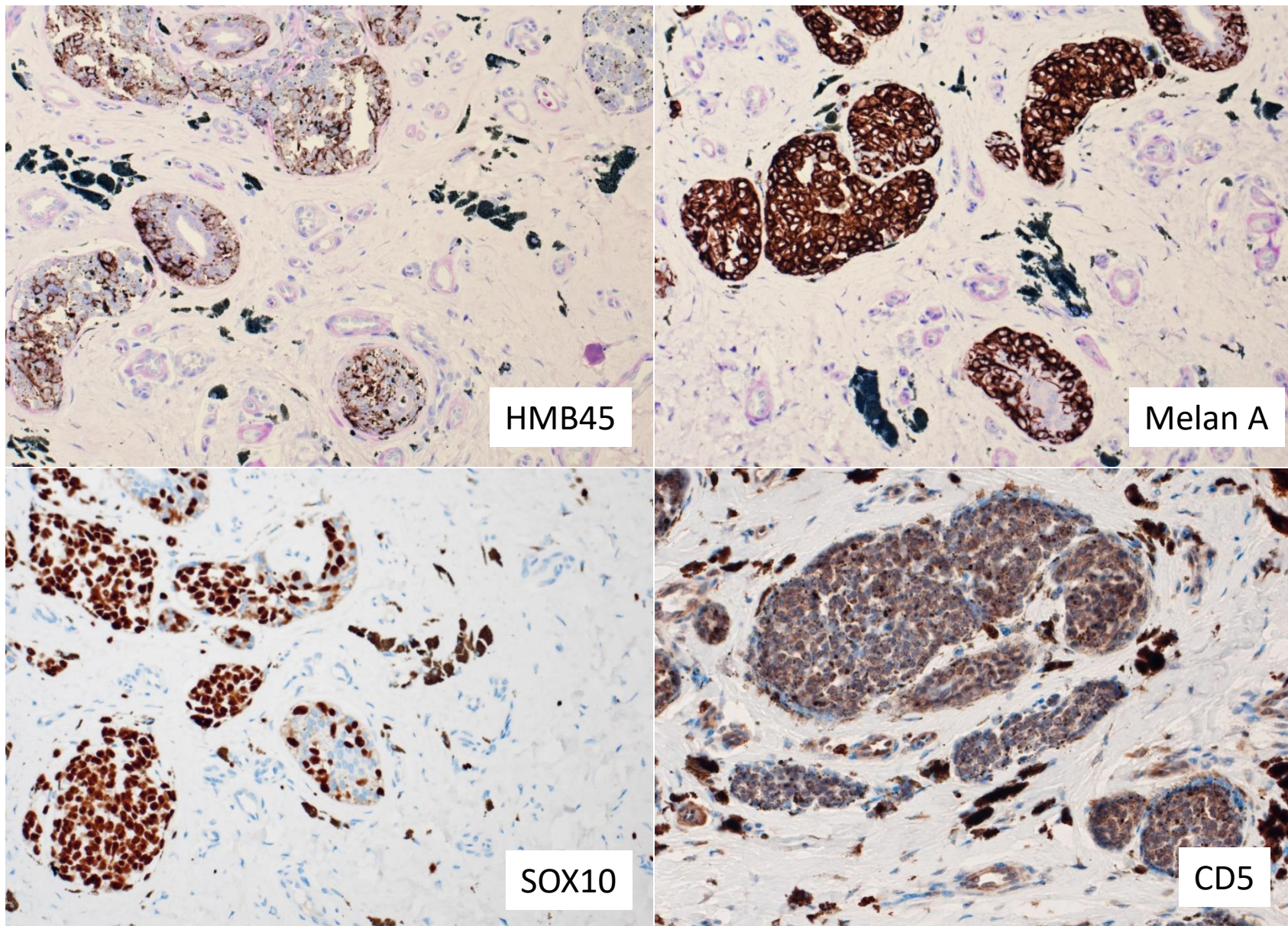
Acral syringotropic melanoma *in situ*. A low-powered microscopic view of the surgical specimen of the sole skin of an 80 y-o woman . Complete resection was confirmed microscopically.



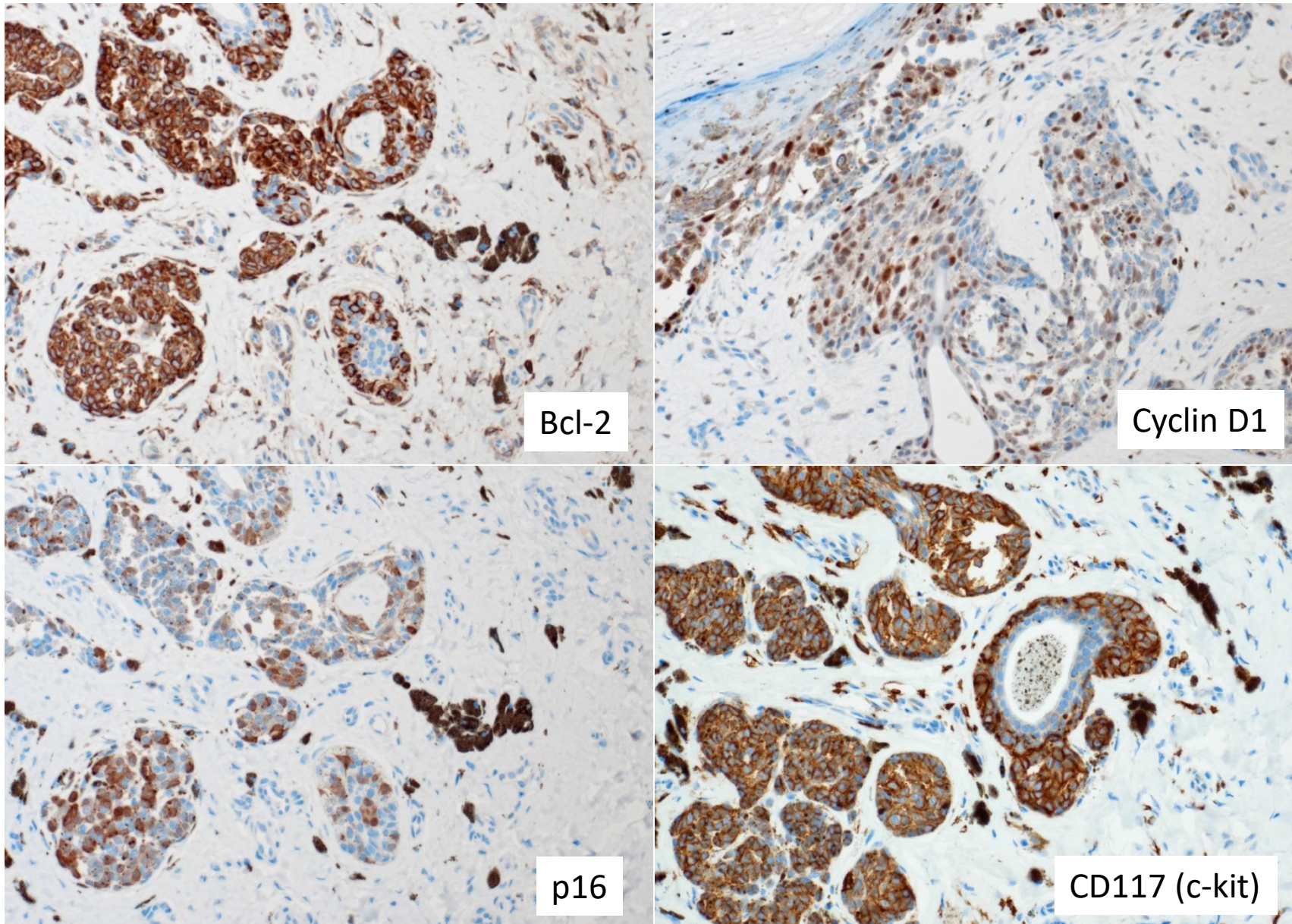
Acral syringotropic melanoma *in situ*. Eccrine gland hyperplasia with syringotropic involvement of malignant melanoma *in situ* is observed (top: H&E. bottom: immunostaining for CK5/6).



Acral syringotropic melanoma *in situ*. Syringotropic melanoma cell nests (H&E). Small-sized melanoma cells occupy the epidermal basal layer and in the eccrine sweat gland. Melanin production by the melanoma cells and the association of melanophages are observed.

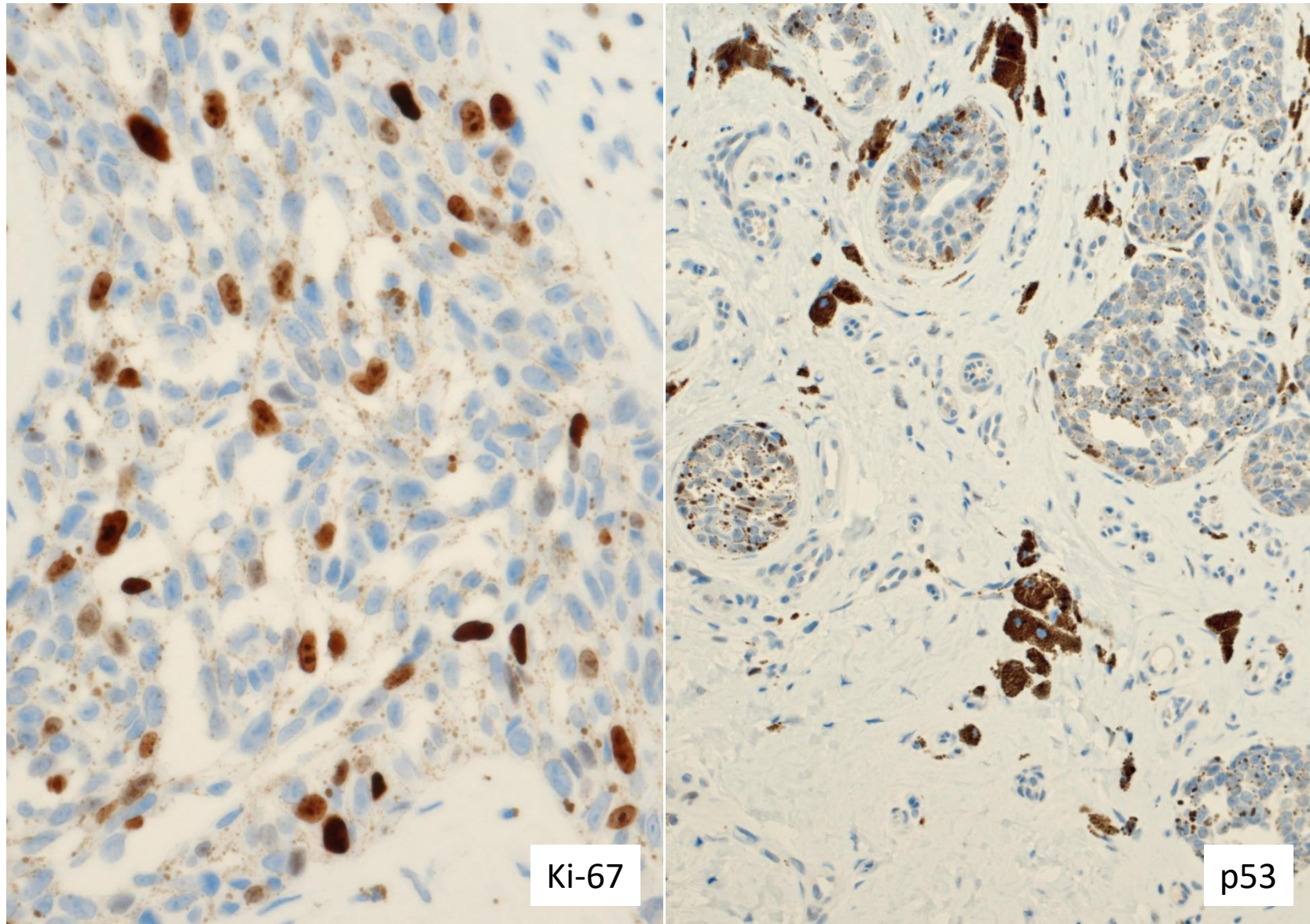


Acral syringotropic melanoma *in situ*. The syringotropic melanoma cells express HMB45, melan A, SOX10 and CD5. High CD5 expression may indicate a favorable prognosis of melanoma. Ref.: The human protein atlas: <https://www.proteinatlas.org/ENSG00000110448-CD5/pathology/melanoma>

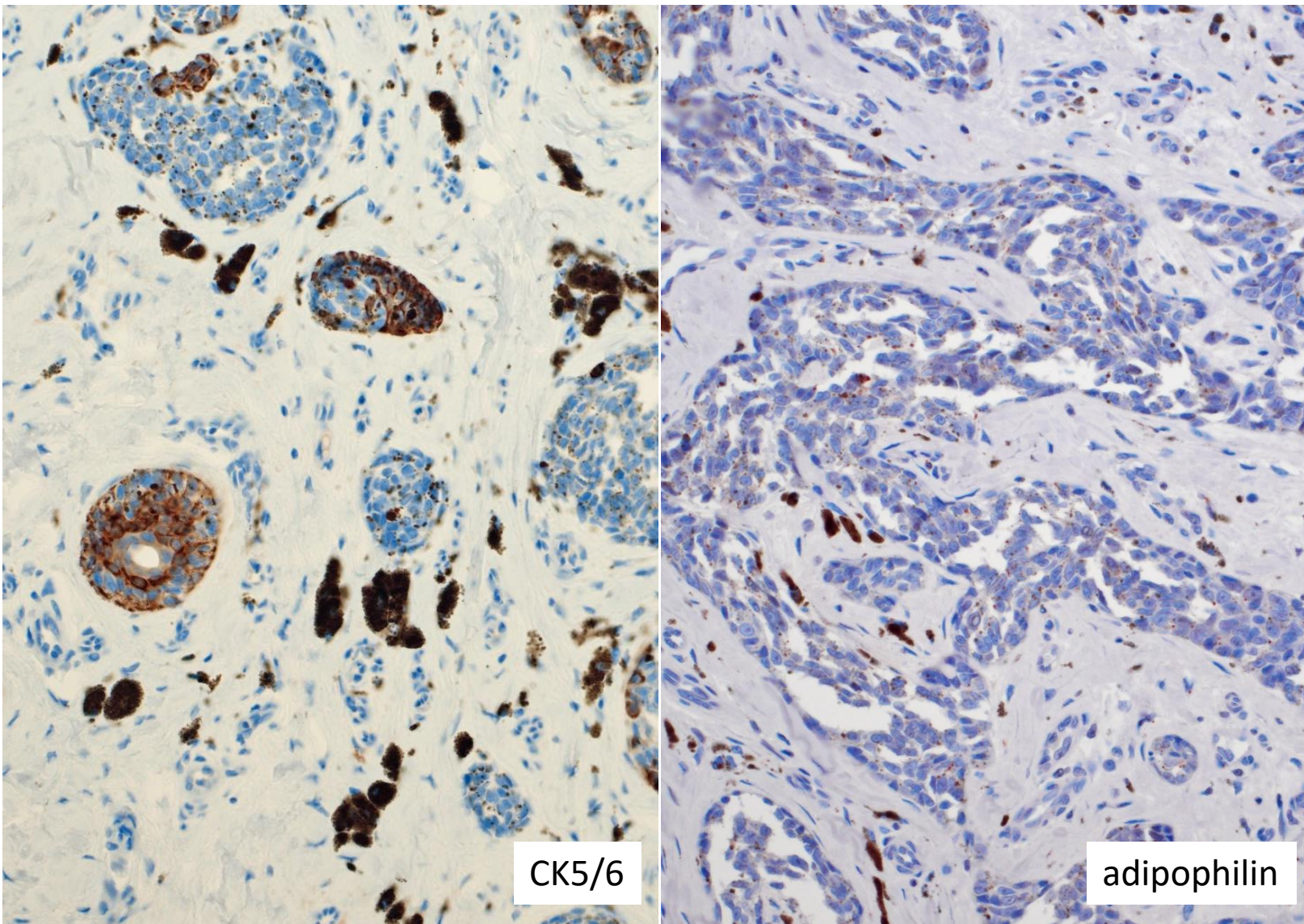


Acral syringotropic melanoma *in situ*. The syringotropic melanoma cells express bcl-2, cyclin D1, p16 and CD117 (c-kit).





Acral syringotropic melanoma *in situ*. Syringotropic melanoma cells show low proliferative activity with K-67 labeling index around 10%. p53 expression is in a wild type pattern (not overexpressed).



Acral syringotropic melanoma *in situ*. Myoepithelial cells of the melanoma-spread eccrine sweat gland are retained as evidenced by CK5/6 immunostaining. Adipophilin is not expressed. High adipophilin expression in melanoma may indicate a poor prognosis. **Ref.:** Fujimoto M, et al. Adipophilin expression in cutaneous malignant melanoma is associated with high proliferation and poor clinical prognosis. *Lab Invest* 2020; 100: 727-737. doi: 10.1038/s41374-019-0358-y