A case of clonal seborrheic keratosis with characteristic dermoscopic features

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To the Editor: A 40-year-old woman presented with a gradually enlarging red oval plaque with a rough surface on the lateral aspect of the left leg for 4 years. No ulceration, crust, exudation, or bleeding was seen. Physical examination showed the lesion was a well-defined, red flat plaque, 1.5 cm × 1.0 cm in diameter, medium hardness, and non-tender [Figure 1A]. There were no systematic abnormalities and the patient had no complaints of pain or itching. Dermoscopic examination revealed multiple brown globules, dotted, and globular vessels on the red background. Several follicular keratotic plugs and multiple milia-like cysts could also be seen. The lesion had a demarcated border [Figure 1B and 1C].

After surgical removal, the specimen was sent for pathologic examination. The post-operative pathology revealed that the proliferative nests of basaloid cells contained melanin [Figure 1D], along with hyperkeratosis and acanthosis [Figure 1E]. In addition, there were follicular keratotic plugs and horn cysts. Some dilated capillaries can be seen in the upper dermis [Figure 1E]. The pathologic diagnosis is clonal seborrheic keratosis (SK).

The clonal SK is a rare variant of SK. Dermoscopy is a non-invasive diagnostic tool widely used in the world, which can provide auxiliary information for the diagnosis of SK. The most common dermoscopic characteristics of typical SK are comedo-like openings, sharply demarcated border, milia-like cysts, and hairpin vessels.[1] Although dermoscopy is a useful tool for the correct diagnosis of typical SK, the dermoscopic manifestations of the lesion, in this case, do contain only some of the common characteristics of SK. And the distinct feature within the red background is the central brown globules, which increases the difficulty of accurate diagnosis of this case. As reported by Uzunçakmak et al.[2] the overall architecture of clonal SK usually presents a dermoscopic clod pattern, which can be seen in congenital nevi, Spitz nevi, and malignant melanoma. Also, many dotted and globular vessels were observed, but vascular structures were less prominent in previous reports of clonal SK.[2,3] In several cases, we can even see that large blue-gray ovoid nests which are generally considered a dermoscopic feature of basal cell carcinoma.[4,5] The clonal SK may present a dermoscopic pitfall.[6] Compared with typical SK, clonal SK has many overlapping dermoscopic manifestations, so carefully differential diagnosis is needed when using dermoscopy to assist the diagnosis of clonal SK.[2,4]

The histopathology of a clonal SK is different from that of a typical SK.[6] In this case, histopathology examination showed that the basaloid cells gathered into nests in the thickened epidermis, clearly bounded by the surrounding cells. This is known as intra-epidermal epithelioma of Borst-Jadassohn [Figure 1D], which corresponds to the “brown globules” seen on dermoscopy. Borst-Jadassohn appearance is only a histopathologic phenomenon that can be found in some diseases, including mainly clonal SK, hydroacanthoma simplex, and Bowen’s disease. Besides, there were dilated capillaries in the upper dermis, which manifested as dotted or globular vessels on dermoscopy.

In conclusion, the peculiarity of clonal SK lies in the lack of characteristic manifestations of typical SK in both clinical manifestations and dermoscopic findings. Therefore, we should perform histopathology examination to make an accurate diagnosis in this type of lesion to avoid misdiagnosis.

Declaration of patient consent

The authors certify that they have obtained the appropriate patient consent form. In the form, the patient provided her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initials will not be published and that due efforts will be made to conceal her identity but that anonymity cannot be guaranteed.

Funding

This work was supported by grants from the Beijing Natural Science Foundation (No. 7182127) and the National Natural Science Foundation of China (No. 61871011).
Conflicts of interest

None.

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How to cite this article: Wang JC, Liu J. A case of clonal seborrheic keratosis with characteristic dermoscopic features. Chin Med J 2020;133:499–500. doi: 10.1097/CMI.0000000000000630