Case Report

Dermoscopy of Rippled Pattern Sebaceoma

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A 77-year-old Japanese woman presented a dome-shaped pinkish nodule on the scalp. Dermoscopy demonstrated yellowish homogeneous ovoid areas with translucent whitish veil and arborizing vessels. No association with Muir-Torrey syndrome was found. The tumor was composed mainly of germinative cells. In addition, the tumor focally showed a typical “rippled pattern” (Figure 4). The cells were arranged in linear rows parallel to one another, simulating Verocay bodies, which were positive for AE1/AE3 (Figure 5) but negative for S-100 protein. There were only a few vacuolated cells with foamy and bubbly cytoplasm, suggesting sebaceous differentiation especially at the superficial area of the region (Figure 6). These cells possess lipid vacuoles which were highlighted with adipophilin antibody (Figure 7). No nuclear atypia or mitotic figures were observed. We presented a case of rippled-pattern sebaceoma and described its dermoscopic features. This was the first report referring to the dermoscopic features of sebaceoma.

1. Case Report

A 77-year-old Japanese woman presented with a tumor on the parietal region of the scalp, which had gradually enlarged over the previous several years. Physical examination revealed a dome-shaped faintly pinkish nodule, 10 × 8 mm in size. The surface of the tumor was covered with yellow papules (Figure 1). Dermoscopic examination demonstrated yellowish homogeneous ovoid areas covered with translucent whitish veil and arborizing vessels at the peripheral peach-colored area of the nodule (Figure 2). The patient had no significant family or past history. No association with Muir-Torrey syndrome was found. The lesion was suspected as being a sebaceous neoplasm and totally excised. Histopathological examination of the excised nodule revealed a well-circumscribed and smooth-bordered neoplasm in the entire dermis with partial connection to the epidermis (Figure 3). The tumor was multinodular, and the most part of the nodule was composed of germinative cells. In addition, the tumor focally showed a typical “rippled pattern” (Figure 4). The cells were arranged in linear rows parallel to one another, simulating Verocay bodies, which were positive for AE1/AE3 (Figure 5) but negative for S-100 protein. There were only a few vacuolated cells with foamy and bubbly cytoplasm, suggesting sebaceous differentiation especially at the superficial area of the region (Figure 6). These cells possess lipid vacuoles which were highlighted with adipophilin antibody (Figure 7). No nuclear atypia or mitotic figures were observed in the constituents of neoplastic cells. There were no features suggesting the existence of nevus sebaceus, such as sebaceous hyperplasia or ectopic apocrine glands around the tumor.

2. Discussion

Sebaceoma, originally described by Troy and Ackerman [1], is a distinct benign sebaceous neoplasm that is histopathologically characterized by dermal aggregations of sebaceous
germinative cells and sebaceous duct-like or cyst-like structures. Recently, a few cases of rippled-pattern sebaceoma have been reported [2–4]. Histopathologic feature of the “rippled pattern” is originally reported as trichilemmal neoplasms (trichomatricoma, trichoblastoma) [5, 6]. Because sebaceoma can show a cribriform or reticular pattern as often seen in the trichoblastoma/trichoepithelioma, and trichoblastoma can present sebaceous differentiation, distinguishing sebaceoma from trichoblastoma with sebaceous differentiation is often extremely difficult [7]. However, we regarded the neoplasm in our case as sebaceoma, because histopathologic examination did not show the characteristic features observed in trichoblastoma (i.e., prominent fibrotic stroma, presence of follicular germ and rudimentary follicular papillae, or a palisading border in the neoplastic aggregations), but demonstrated the presence of mature sebocytes [7, 8]. There was no clinical history of nevus sebaceus and no such lesion was observed in the present case.

Dermoscopy is now widely used as a tool to diagnose many pigmented and nonpigmented cutaneous lesions. In the present case, dermoscopic examination demonstrated two discriminating features. One was clearly visualized yellowish homogeneous ovoid areas. This feature usually corresponds to dermal conglomerations of the cells with sebaceous differentiation. However, interestingly, this case histopathologically showed only limited area with sebaceous differentiation. The other feature was arborizing vessels at the peripheral area of the nodule. There were no arborizing vessels in the center of the tumor on dermoscopy or on clinical image as described in basal cell carcinoma [9]. Menzies et al. report that the specificity of this feature is 92% for diagnosis of pigmented basal cell carcinoma (BCC) [10]. It is also reported that arborizing vessels are seen characteristically in the cases of trichoblastoma [11]. Pluripotent stem cells in the folliculosebaceous-apocrine unit may give rise to follicular germinative cells and sebaceous germinative cells. Sebaceoma, trichoblastoma, and BCC, which are a malignant neoplasm of abnormal follicular germinative cells, are highly related to neoplasms embryologically [7, 8]. Therefore, it was considered that the feature of arborizing vessels could be commonly observed

Figure 1: A dome-shaped faintly pinkish nodule. The surface of the tumor was covered with yellow papules.

Figure 2: Yellowish homogeneous ovoid areas and arborizing vessels at the periphery of the nodule.

Figure 3: A well-circumscribed, smooth-bordered, and deeply basophilic tumor in the dermis.

Figure 4: The tumor is composed of basaloid cells with deeply basophilic oval nuclei showing a typical rippled pattern.
Figure 5: The cells simulating Verocay bodies are positive for AE1/AE3.

Figure 6: A few sebocytes are seen at the periphery of the tumor nests.

Figure 7: Sebocytes seen at the periphery of the tumor nests are positive with adipophilin.

in the neoplasms derived from the folliculosebaceous unit.

In this report, we presented a case of rippled-pattern sebaceoma and described its intriguing dermoscopic features.

References
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