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Unusual dermoscopic features of multiple pilomatricomas, including a rare bullous variant

Caterina Mariarosaria Giorgio,[1] Mario Diplomatico,[2] Gaetano Licata,[3] Luca Damiani,[1] Francesco Esposito,[4] Eugenia Veronica Di Brizzi,[1] Filomena Barbato[5]

[1]Dermatology Unit, University of Campania, Naples; [2]Neonatal Intensive Care Unit, San Giuseppe Moscati Hospital, Avellino; [3]Dermatology Unit, San Antonio Abate Hospital, Trapani; [4]Radiology Department, Santobono-Pausilipon Children Hospital, Naples; [5]Department of Pediatric Dermatology, Santobono-Pausilipon Children Hospital, Naples, Italy

Correspondence: Caterina Mariarosaria Giorgio, MD, Dermatology Unit, University of Campania, Nuovo Policlinico, Via Pansini 5, 80131 Naples, Italy.
E-mail: caterinagiorgio80@gmail.com

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Dear Editor,

Pilomatricoma, or Malherbe's calcifying epithelioma, is a benign neoplasm derived from hair follicle matrix cells.[1] It usually presents as a solitary, firm, slow-growing subcutaneous nodule. Multiple pilomatricomas occur in about 2% of cases and may be associated with syndromes like Gardner's syndrome, Turner syndrome, and myotonic dystrophy.[2] The bullous variant is an exceptionally rare form that presents with an overlying blister due to lymphatic dilation. Fewer than 30 cases of bullous pilomatricoma have been reported, and even fewer cases have involved multiple lesions, making this report particularly noteworthy.[1,3] An 11-year-old male with no family history of genetic syndromes presented with a progressively enlarging mass in the right supraclavicular region over five months. The lesion was asymptomatic, and the patient denied any history of trauma. One year earlier, he had undergone excision of a sebaceous cyst. On examination, the main lesion was a 6×4 cm polylobulated, pedunculated tumor with a reddish-pink hue and a translucent overlying bulla. The central portion was firm, while the periphery appeared softer with hemorrhagic crusts (Figure 1 A,B). Two smaller nodules (1 cm in the retroauricular region and 1.5 cm on the upper arm) were also present. Dermoscopy revealed a distinctive "fishing net" pattern: a pink-violet pigmentation interwoven with a network of whitish structures. A well-defined central white-yellowish area, surrounded by black streaks and vascular ectasia, was notable (Figure 1C). These findings strongly suggested an adnexal tumor.[4] Ultrasound with color Doppler showed a mixed echogenic tumor (4×3.3 cm) with vascularization at its periphery (Figure 1D). Magnetic resonance imaging (MRI) revealed a pedunculated mass (4×3.5 cm) with a T1 and T2 hypointense central nodule, thin fibrous septa, and vascular ectasia.[3] Histopathology confirmed multiple pilomatricomas. The supraclavicular lesion displayed significant dermal edema and dilated lymphatic vessels, consistent with the bullous variant.

Pilomatricomas can pose a diagnostic challenge, particularly when they deviate from the classic presentation. The bullous variant is especially rare and can be mistaken for cystic lesions or malignancies.[1,5] Dermoscopy played a crucial role in our case, highlighting features such as vascular ectasia, white streaks, and a fishing-net pattern, distinguishing it from other entities.[4] The bullous component likely results from tumor-induced compression of dermal lymphatic vessels, leading to obstruction and transudation of lymphatic fluid. This mechanism accounts for the blister-like appearance. While no syndromic features were present, multiple pilomatricomas raise the question of an underlying genetic predisposition. *CTNNB1* (beta-catenin) mutations have been detected in 75% of sporadic pilomatricomas, suggesting a possible molecular basis.[2] The key takeaway from this case is the

integration of clinical, dermoscopic, and histopathological data in identifying atypical pilomatricomas and avoiding misdiagnosis. The presence of black streaks, vascular ectasia, and a central white structure in dermoscopy suggests that the range of dermoscopic features in pilomatricomas may be broader than previously recognized.

This case underscores the importance of dermoscopy in diagnosing atypical pilomatricomas, especially the rare bullous variant. Recognizing the distinctive dermoscopic and histological features of pilomatricomas is essential to avoid unnecessary investigations and misdiagnoses. Further studies are needed to explore the molecular basis of multiple pilomatricomas and their potential syndromic associations. Clinicians should consider pilomatricoma in the differential diagnosis of subcutaneous nodules, particularly when dermoscopy reveals characteristic features such as vascular ectasia and the fishing-net pattern.

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Figure 1. A, **B**) Initial evaluation showing the primary lesion in the right supraclavicular region. **C**) Dermoscopy revealing “fishing net” pattern, with pink-violet pigmentation interlaced with a network of whitish structures. **D**) Ultrasound with Color Doppler showing mixed echogenic tumor (4×3.3 cm) exhibiting peripheral vascularization.