Letter to the Editor / Editöre Mektup

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Bullous pilomatricoma in a pediatric patient with dermoscopic features

Pediatrik bir hastada büllöz pilomatrikoma ve dermoskopik özellikleri

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To the Editor,

Pilomatricoma, historically termed calcifying epithelioma of Malherbe, is a benign adnexal neoplasm derived from hair matrix cells[1]. It typically presents as a solitary, slow-growing, well-circumscribed dermal or subcutaneous nodule that is firm to hard on palpation. Although it most often involves the head, neck, and upper extremities -particularly in children and adolescents- it can occur at any site and may be overlooked when it departs from its classic appearance[2]. Several uncommon clinical variants have been described, including aggressive, perforating, ossifying, cystic, pigmented, superficial, pseudocystic, acantholytic, and malignant variants, as well as the bullous (anetodermic/lymphangiectatic) form of pilomatricoma[3]. Bullous pilomatricoma is a rare subtype in which a flaccid, blister-like lesion overlies the tumor and may be associated with marked laxity and striae-like wrinkling[4]. Because the bullous component can dominate the clinical picture, it is frequently misdiagnosed and may mimic bullous disorders, cystic lesions, or cutaneous tumors[5]. While histopathology remains definitive, noninvasive tools such as high-frequency ultrasonography and dermoscopy may enhance preoperative recognition[4].

A 13-year-old girl presented with a gradually enlarging lesion on the left shoulder. One year earlier she had noticed a small, acne-like, firm papule at the same site; over the last three months it evolved into a touch-sensitive, painful, softer, blister-like lesion. She denied local trauma and had no history of vaccination or injection at the site. Her medical and family histories were unremarkable. Dermatologic examination revealed a solitary, oval, pink-to-violaceous, bulla-like lesion measuring approximately 2.0×1.0 cm (Figure 1a). On palpation, a well-demarcated, firm subcutaneous nodule was appreciable beneath the flaccid component, and the lesion was painful to touch. The overlying surface was smooth with a lax pseudobullous "roof" that was readily depressible and collapsed inward with gentle pressure, resembling a dimple sign (Figure 1b). Linear perilesional striae (~1 cm) were noted (Figure 1a). Dermoscopy demonstrated a foggy/translucent background with luminous yellow lump-like

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structures, a linear branching vascular pattern, and a peripheral bluish-grey area (Figure 1c, d). The lesion was completely excised.

Histopathological examination (hematoxylin and eosin) demonstrated a dermal-based matrical tumor characterized by peripheral nests of basaloid matrical cells transitioning toward central aggregates of anucleate, pale-staining shadow (ghost) cells (Figure 2a). A foreign-body type granulomatous reaction with multinucleated giant cells was identified (Figure 2b). In addition, epidermal clefting overlying the lesion was present (Figure 2c), and focal intratumoral calcifications were noted (Figure 2d). Collectively, these findings supported the diagnosis of bullous pilomatricoma. Written informed consent was obtained from the patient's legal guardian for publication.

Bullous pilomatricoma is uncommon, accounting for approximately 3-7% of pilomatricoma cases in some series, and the "bulla" typically represents a pseudobulla related to dermal edema and structural alteration rather than a true intraepidermal blister[4,5]. Reported cases occur predominantly in younger patients and often involve the upper extremities and trunk, especially the shoulder and upper arm[2,5]. Our patient fits this typical demographic and anatomic distribution. Clinically, the key clue is the combination of a lax, translucent, wrinkled pseudobullous surface over a clearly palpable firm nodule. In our case, the roof collapsed inward on pressure over an underlying hard nodule (Figure 1b). The associated striae may be secondary to local stretching and dermal matrix changes, consistent with an anetodermic component.

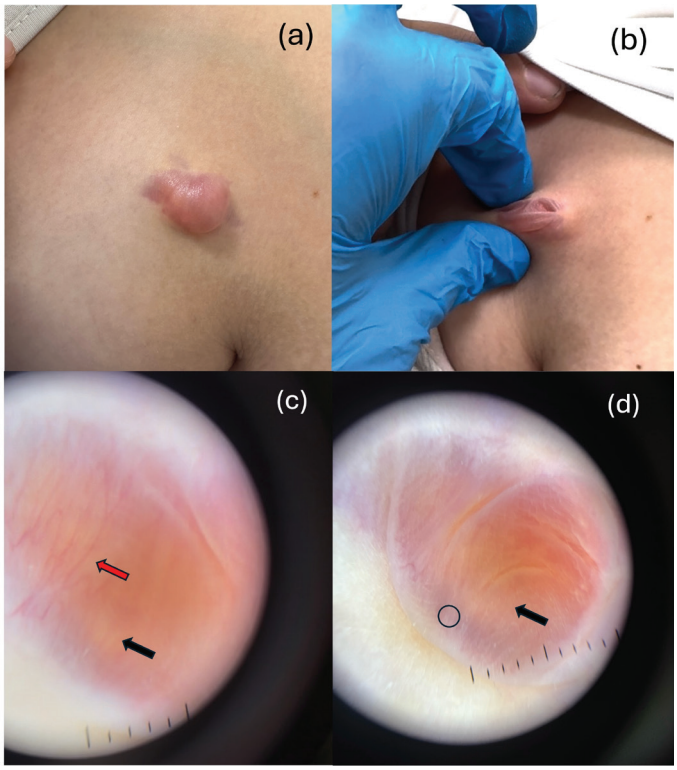


Figure 1. (a) Solitary oval pink-to-violaceous pseudobullous lesion measuring approximately 2.0×1.0 cm with surrounding linear striae. (b) Gentle pressure causes inward collapse of the lax roof, producing a dimple-like appearance over the underlying firm nodule. (c, d) Dermoscopy showing luminous yellow lump-like structures (black arrows), branching linear vessels (red arrows), and peripheral bluish-grey color (blue circle)

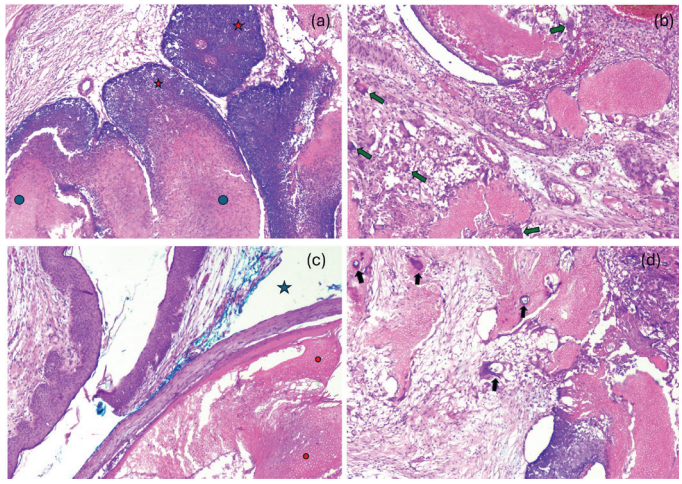


Figure 2. (a) Peripheral nests of basaloid matrical cells (red stars) surrounding central aggregates of anucleate shadow cells (blue circles) (H&E, ×100). (b) Foreign-body granulomatous reaction with multinucleated giant cells (green arrows) (H&E, ×100). (c) Epidermal clefting overlying the tumor (blue star) with underlying shadow cells (red circles) (H&E, ×100). (d) Focal intratumoral calcifications (black arrows) (H&E, ×100)
H&E: Hematoxylin and eosin

Proposed pathogenesis likely involves overlapping mechanisms: lymphatic dysfunction, lymphedema and extracellular matrix degradation[4,5]. Tumor expansion may compromise local lymphatic drainage, resulting in lymphangiectasia, lymph leakage, and dermal edema that produces the bulla-like morphology[4]. In parallel, clinicopathologic and immunohistochemical observations suggest that mediators of matrix remodeling and lymphangiogenesis, including matrix metalloproteinase and vascular endothelial growth factor-related pathways, may contribute to collagen/elastin disruption and the characteristic lax overlying skin[5]. Mechanical irritation, minor trauma or vaccination has been proposed, yet many patients, including ours, report no such history[4,5].

Given the broad differential diagnosis, including lymphatic malformations, hemangioma, epidermoid cyst, hidrocystoma, and dermatofibrosarcoma protuberans, careful clinicodermoscopic correlation is essential[4]. Lymphatic malformations usually demonstrate multiple translucent lacunae separated by pale septa and lack a palpable hard nodule. Hemangiomas typically show red-blue lacunae without yellow keratin-related structures. Epidermoid cysts usually exhibit a central punctum with homogeneous yellow-white coloration but do not display a translucent pseudobullous roof or branching vessels. Hidrocystomas generally appear as translucent cysts without an underlying calcified mass, whereas dermatofibrosarcoma protuberans presents as a firm plaque or multinodular lesion with an entirely different clinical evolution. In contrast, the coexistence of a firm subcutaneous nodule, a collapsible pseudobullous surface, luminous yellow structures, peripheral bluish-grey pigmentation, and branching vessels strongly favored bullous pilomatricoma in our patient. Dermoscopy is particularly helpful because the thin, lax roof allows visualization of structures that are usually obscured in conventional pilomatricoma, thereby increasing diagnostic confidence before excision. Reported cases describe a relatively characteristic dermoscopic pattern dominated by

a translucent/foggy background, refractile luminous yellow structures, bluish-grey homogeneous areas, and branched/arborizing vessels[2,4]. This pattern, also present in our case, likely reflects keratinized/calcified tumor content, shadow cell-rich areas, and prominent dermal vascular or lymphatic changes, aiding distinction from other pediatric bullous lesions. Similar to other pilomatricoma variants, complete surgical excision is both diagnostic and curative, and recurrence is uncommon. The present case further expands the limited dermoscopic literature on bullous pilomatricoma. In summary, bullous pilomatricoma should be considered whenever a pseudobullous lesion overlies a firm subcutaneous nodule, particularly when aforementioned characteristic dermoscopic clues are present. Because only a limited number of cases describing the dermoscopic features of bullous pilomatricoma have been reported, additional well-documented cases are valuable for improving preoperative recognition of this uncommon variant.

Ethics

Informed Consent: Written informed consent was obtained from the patient's legal guardian for publication.

Footnotes

Authorship Contributions

Surgical and Medical Practices: F.H., Y.S.Ç., M.A., Concept: F.H., G.Ç., S.P.K., Design: F.H., Data Collection or Processing: F.H., Analysis or Interpretation: F.H., G.Ç., Y.S.Ç., S.P.K., M.A., Literature Search: F.H., G.Ç., Writing: F.H.

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References

1. Chessa MA, Baracca MF, Piraccini BM, et al: Pilomatricoma: clinical, dermoscopic findings and management in 55 pediatric patients and concise review of the literature with special emphasis on dermoscopy. Dermatol Pract Concept. 2024;14:e2024140.
2. Chen SY, Wu F, Qian Y, Zhu L, Tu YT, Huang CZ: Pilomatricoma with bullous appearance: a case report and review of literature. Int J Dermatol. 2011;50:615-8.
3. Sung KY, Lee S, Jeong Y, Lee SY: Pseudocystic pilomatricoma: a new variant and review of the literature. Australas J Dermatol. 2021;62:60-3.
4. Liu J, Liu X, Qu Y, Zhang S: Dermotoscope assisted diagnosis of adolescent bullous pilomatricoma: six case reports. BMC Pediatr. 2024;24:437.
5. Nam KH, Lee SK, Lee IJ, Park J, Yun SK: Clinicopathological and immunohistochemical characteristics of bullous pilomatricoma: a retrospective, single-center study, and comparison with ordinary pilomatricoma. An Bras Dermatol. 2024;99:362-9.