

A Case of Pilomatricoma Showing Rapid Enlargement Due to Intradermal and Intratumoral Hemorrhage

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Pilomatricoma, known as calcifying epithelioma of Malherbe, is a deep dermal or subcutaneous tumor showing slow growth. There are some reports showing rapid enlargement of the tumors as a result of variable amounts of bleeding into the intratumoral cystic space and into the superficial dermis.

We report an uncommon case of a rapidly enlarged pilomatricoma due to simultaneous intratumoral and intradermal hemorrhage. (*Ann Dermatol* 14(3) 168~170, 2002).

Key Words : Pilomatricoma, Intratumoral and Intradermal Hemorrhage

Pilomatricoma, originated from hair matrix, is a deep dermal or subcutaneous nodular tumor and shows slow growth. The lesions are generally not associated with skin changes, but some cases with hyperpigmentation or anetodermic changes of skin have been reported^{1,2}. There are additionally some reports that showed rapid enlargement of the tumor as a result of variable amounts of bleeding into the intratumoral cystic space^{3,4}. Seitz and Holbach reported a case of pilomatricoma that appeared early as a rapidly growing reddish tumor on medial canthal region due to superficial intradermal bleeding⁵.

We observed a case of hemangioma-like pilomatricoma detected early due to intradermal and intratumoral hemorrhage without any history of trauma.

CASE REPORT

A 70 year-old woman was admitted with a red to

purple colored solitary papule that had abruptly appeared on normal-looking skin of her left temple 3 weeks before admission. The lesion became larger rapidly, but there was no subjective symptom except sudden enlargement of the lesion. On admission skin lesion showed 10mm in diameter and had a protrusion of about 6-7 mm in diameter on center of the purple colored macule. On physical examination, there was no remarkable finding, and the patient denied all systemic diseases such as bleeding tendency, diabetes mellitus.

On histologic examination, in deep reticular dermis and subcutis, there was a tumor characterized by proliferation of small, basaloid cells, with dark nuclei, small nucleoli, and virtually no visible cytoplasm lining cystic structure. And the tumor showed hemorrhage into the tumoral cystic space. More centrally located, larger eosinophilic "shadow" cell with clear, non-staining nuclei were apparent. Particularly we found dilated dermal vessels with diffuse hemorrhage in the loosened dermis.

Clinically and histologically, this tumor was confirmed as a pilomatricoma with intradermal and intratumoral hemorrhage. Since total excision of the tumor, we could not find any evidence of recurrence.

DISCUSSION

Pilomatricoma was originally described by Mal-

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Fig. 1. A red to purple colored nodule on the left temple.

Fig. 2-B. The tumor showed hemorrhage into the tumoral cystic space. More centrally located, larger eosinophilic "shadow" cell with clear, nonstaining nuclei are apparent.

herbe and Chenantais as "calcified epithelioma of the sebaceous gland"⁶ and has become accepted as a tumor differentiating toward hair structure⁷. Noguchi et al. suggested that the distribution of pilomatricoma corresponds to the density of hair follicles at a particular site. Many tumors occurred on the head and neck, a cosmetically sensitive area⁸. Size is variable, ranging from 3mm to 5cm in diameter. The tumor arises at any age, but the onset is frequently found during childhood.

Pilomatricoma is thought to enlarge at an indolent pace, thus most of the patients with this tumor go to the dermatologists with a tumor that feels hard and grows slowly. But rarely, with rapid enlargement of the tumor size due to intratumoral or intradermal hemorrhage^{3,4}. Robert et al. commented

Fig. 2-A. A tumor characterized by proliferation of small, basaloid cells, with dark nuclei in deep reticular dermis and subcutis. Loosened dermis and large dilated dermal vessels with diffuse hemorrhage.

that hemorrhage into pilomatricoma did not seem to be unusual, bleeding into the tumor mass may have occurred spontaneously or after minor trauma, and the hematomas developed in previously existing, usually subclinical, cystic pilomatricomas. But they could not exclude the possibility that the clinical manifestations were due, in part, to rapid growth of the tumor itself⁴.

The pathogenesis of intradermal or intratumoral hemorrhage is not certain. It may be caused by enzymatic degradation of elastic fibers around dermal vessels with elastase secreted from dermal macrophages or reduction of connective tissue around dermal vessels due to degeneration of elastic fibers previous to inflammatory reaction^{2,9,10,11}. Therefore extravasation of RBC, hemorrhage or dilatation of dermal vessels may occur as a result. Suhr et al. showed that there was a positive relationship between dermal connective tissue and infiltration of chronic inflammatory cells⁹. We suggest that further study should include the relationship between dermal hemorrhage and dermal elements.

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