A Case of Atypical Sessile Dermatofibroma

Yung Jae Lee, M.D., Sung Ku Ahn,* M.D., and Seung Hun Lee, M.D.

Department of Dermatology, Yonsei University College of Medicine, Seoul, Korea
Department of Dermatology, Yonsei University Wonju College of Medicine, Wonju, Korea

We report a case of a morphologic variant of dermatofibroma. A coin sized, brownish, shinny, somewhat fibrotic pedunculated tumor in a 39-year-old male was diagnosed as a sclerosing hemangioma, a type of dermatofibroma histopathologically. Its dome shape morphology was unusual in comparison with the typical morphology of dermatofibroma that we know.
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Key Words: Dermatofibroma, Morphologic variant, Sclerosing hemangioma

Dermatofibromas are one of the most common benign dermal tumors of the skin. They are known as fibrous histiocytomas, nodular subepidermal fibrosis, histiocytoma cutis, and sclerosing hemangiomas. They are readily recognized both clinically and microscopically although they are variable in size, shape (depressed, flat, polypoid etc.) and microscopic findings. Usually, they occur in the skin as firm, indolent single or multiple nodules on the extremities. But other rare clinical morphologic variants of dermatofibroma, such as multiple crustered dermatofibroma, annula hemosiderotic histiocytoma, multinodular hemosiderotic histiocytoma, atypical polypoid dermatofibroma, and aneurysmal fibrous histiocytoma have been reported[2-7].

We herein report a case of dermatofibroma, in which the clinical morphology was similar with sessile soft fibroma, and its histopathologic findings were compatible with sclerosing hemangioma.

REPORT OF A CASE

A 39-year-old male was referred to our hospital for a 2 cm sized sessile mass on the left dorsum of his foot, which had been present for 10 years. There was no injury history on the lesional site and his family history was non-contributory.

The mass was a somewhat shinny, brownish more or less fibrotic surfaced, 2cm sized sessile tumor on the left dorsurm of the foot (Fig. 1). There were no subjective symptoms such as pain, pruritus or burning sensation. Clinically the lesion was similar with soft fibroma. So, an excision of the tumor was performed.

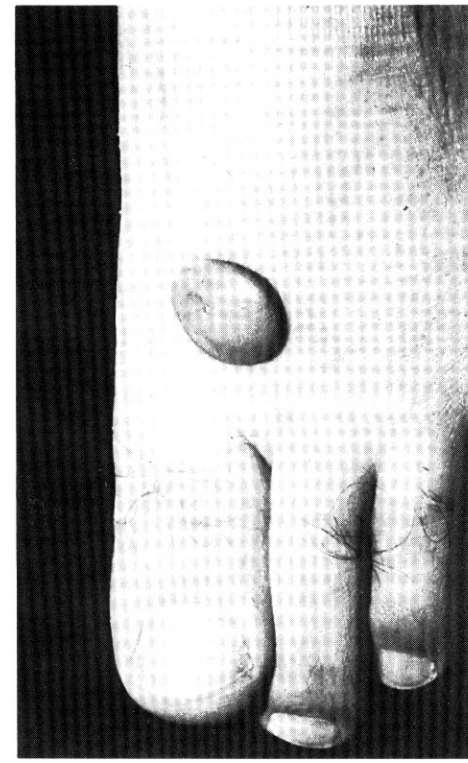

Fig. 1. Dome shaped with pediculation and fibrotic surface change, mimicking soft fibroma.

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Reprint request to: Seung Hun Lee, M.D., Department of Dermatology, Yong Dong Severance Hospital Yonsei University College Medicine. Yongdong P.O.Box 1217, Seoul Korea.

In histologic findings, the epidermis showed acanthosis, elongation of rete ridges, hyperpigmentation of the basal cell layer and basal cell epithelioma-like proliferation (Fig. 2). The dermal lesion consisted of a relatively well circumscribed dense cellular infiltration on the entire dermis. The epidermis was separated from the infiltrates by a zone of grenz. In high power view, the tumor cells were mainly histiocytes, composed of ovoid nucleus and more or less ample cytoplasm. The tumor mass showed massive proliferation of vessels and sclerosis of collagen (Fig. 3). According to these findings, we diagnosed this case as sclerosing hemangioma, which is a type of dermatofibroma.

DISCUSSION

Typical dermatofibromas are usually small (a few millimeters in diameter) papules or firm nodules with a smooth surface. Their colors vary from skin colored to dusty brown or red and sometimes they may be dark brown to black, resulting in misdiagnosis as malignant melanoma. They are usually single lesions, but generalized multiple from has been reported[1]. Other rare morphologic variants of this tumor have been reported, such as multiple clustered dermatofibroma[2], annular hemosiderotic histiocytoma[3], multinodular hemosiderotic dermatofibroma[4], atrophic dermatofibromas[5], atypical polypoid dermatofibroma[6] and aneurysmal fibrous histiocytoma of the skin[7].

Histopathologic findings of dermatofibromas show sharply circumscribed but not encapulated dermal nodules composed of young and mature collagen, fibroblasts, capillaries, and histiocytes. The epidermal changes of dermatofibroma are variable[9]. Baek et al. reported a case of dermatofibroma which showed various epidermal changes such as acanthosis, elongation of rete ridges, thin interlacing epidermal strands with increased pigmentation resembling seborrheic keratosis or fibroepithelioma, immature hair follicles and sebaceous lobules, hair germ like buddings and superficial basal cell epithelioma like proliferations[11]. Halpryn and Allen also reported epidermal changes such as seborrheic keratosis, basal cell epithelioma, keratoacanthoma[10]. Lee et al. reviewed 34 cases of dermatofibroma clinically and histopathologically and reported similar

Fig. 2. Epidermis showed acanthosis, elongation of rete ridges and hyperpigmentation of the basal cell layer (H&E stain, ×50).

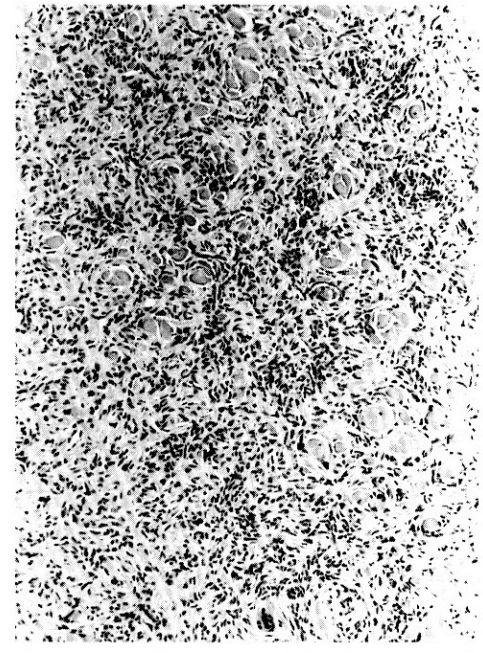

Fig. 3. The tumor cells were mainly histiocytes and the tumor mass showed massive proliferation of vessels (H&E stain×400).

results in epidermal changes[12]. In our case, the epidermis showed acanthosis, elongation of rete ridges, hyperpigmentation of the basal cell layer and basal cell epithelioma-like proliferation.

Large dome shaped dermatofibroma with pedunculation, as in our case, has been reported by a few authors. Its clinical shape is very similary with soft fibroma. Puig et al. reported two cases of dermatofibroma which were misdiagnosed as soft fibroma at initial observation[6]. The tumors were exophytic, polypoid and covered by rough nonulcerated skin, and were joined by a short pedicle to an indurated base. In histopathologic findings, abundant mitoses and frequent atypical pleomorphic cells were seen in the exophytic portion of these tumors, and these pathologic findings overlapped with pleomorphic fibromas, a newly recognized entity reported by kamino et al.[8], that is the atypical counterpart of soft fibroma of skin.

Our case may represent the distinct clinicopathologic findings of dermatofibroma. Its sessile shape and fibrotic surface changes mimicked soft fibroma clinically. Histopathologically, it is compatible with sclerosing hemangioma, a type of dermatofibroma.

In conclusion, a biopsy is recommendable on these polypoid, dome shaped tumors which look like soft fibroma clinically, to differentiate atypically shaped dermatofibroma.

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