A Case of Targetoid Hemosideric Hemangioma

Gina Kim, M.D., Hwa-Jung Ryu, M.D., Chil-Hwan Oh, M.D.

Department of Dermatology, College of Medicine, Korea University

Targetoid hemosideric hemangioma represents a distinctive, benign, vascular tumor. Histologically, it is a noncircumscribed vascular proliferation that may extend into the subcutaneous tissue. The superficial component is composed of ectactic dermal vascular lumina with intradermal papillary projections. The deeper component is composed of angular lumina dissecting collagen bundles. We present a case of targetoid hemosideric hemangioma which was presented as solitary nodule on left thigh. (Ann Dermatol 14(2) 124-126, 2002).

Key Words: Targetoid hemosideric hemangioma

Targetoid hemosideric hemangiomas, also known as hobnail hemangioma, are benign vascular tumors characterized histologically by a biphasic growth pattern of dilated vascular structures in the superficial dermis lined by prominent hobnail endothelial cells and collagen dissecting rather narrow neoplastic vessels in deeper part of the lesion. Peripheral deposition of hemosiderin gives the lesion a fairly characteristic targetoid appearance.

CASE REPORT

A 54-year-old woman presented to us with a violaceous papule with halo on left thigh. She said it developed about five days ago suddenly and denied any history of trauma, irritation or symptoms in this solitary lesion. Her past history and family history were not remarkable. The routine laboratory evaluation revealed no specific findings. Physical evaluation revealed a solitary, asymptomatic, match-head sized violaceous papule, surrounded by thin, pale area and a peripheral ecchymotic ring on left thigh (Fig. 1).

Under the impression of irritated hemangioma, the central papule was excised completely and examined under the microscope with hematoxylin and eosin staining. Histologic examination revealed ectactic vessels packed with many red blood cells in the superficial dermis and some papillary projection is identified. There was some lymphocytic infiltration and extravasation of erythrocytes is prominent. In upper dermis, endothelial cells which protruded into lumina resembled hobnails were seen (Fig. 2A). In deeper dermis, slit-shaped thin walled vessels appeared dissecting the collagen bundle (Fig. 2B).

After biopsy, the ecchymotic ring has disappeared over time and she has shown no recurrence until now.

DISCUSSION

Targetoid hemosideric hemangioma recently described benign vascular tumor. It was originally described in 1988 by Santa Cruz and Aronberg. After the original description, a few additional case reports have appeared in the literature and now it is regarded as a new, unique benign vascular neoplasm. The term ‘targetoid hemosideric hemangioma’ resulted from characteristic targetoid appearance on clinical examination. However, it has been shown clearly that most vascular lesions showing histologic features of ‘targetoid hemosideric hemangioma’ lack this clinical appearance. In order to emphasize the diagnostic hobnail cytomorphology of these neoplasms independent of the clinical targetoid appearance, the alternative name hobnail hemangioma was proposed. Ac-
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According to some literature, hobnail hemangioma and targetoid hemosideric hemangioma are described as a same disease entity. Targetoid hemosideric hemangioma presents clinically as a brown to violaceous central papule, surrounded by a thin, pale area and a peripheral ecchymotic ring, which is usually less than 1 cm in diameter. It has a characteristic clinical presentation of the acute onset of a small circular lesion with a raised purple center and successive clear and ecchymotic halos that expand peripherally over time. It can arise in any site, but commonly in the extremities and the trunk of young or middle aged adults with slightly male predominance.

The clinical differential diagnosis included melanocytic nevus, dermatofibroma, hemangioma, and insect bite reaction.

As far as histogenesis is concerned, it is likely that targetoid hemosideric hemangiomas represent lesions of vascular endothelium. Factor VIII-associated antigen has been variously reported as weakly positive and as negative. Several authors postulate that targetoid hemosideric hemangiomas are the result of trauma to preexisting hemangiomas with subsequent occurrence of thrombi and recanalization.

Histologically, targetoid hemosideric hemangioma shows two distinctive features. The first is a hobnail endothelial cytomorphologic appearance, and the second is a biphasic growth pattern. In the superficial dermis, dilated, irregular, thin-walled ectatic vascular spaces are observed. The vascular spaces sometimes exhibit intraluminal papillary projections and often lined by bland endothelial cells with scanty cytoplasm and round nuclei that protrude into the lumina and closely resemble hobnails. In the deeper dermis, the vascular channels become less conspicuous, slit shaped, irregular and angulated, so they appear to dissect between collagen bundles. Extensive extravasation of erythrocytes and in a later stage, extensive stromal hemosiderin deposition are commonly seen. A variable degree of lymphocytic infiltration is observed.

Histologic differential diagnosis includes those hemangiomas that have hobnail endothelial cells such as retiform hemangioendothelioma, malignant endovascular papillary angioendothelioma, patch stage Kaposi’s sarcoma, epithelioid hemangioma, and progressive lymphangioma. The presence of plasma cells, apoptotic endothelial cells, and intracytoplasmic endothelial inclusion bodies fa-
vor Kaposi’s sarcoma\textsuperscript{3,8}. Most cases of Kaposi’s sarcoma can be distinguished by the presence of multiple non-targetoid purplish macules or nodules. Epithelioid hemangioma may be identified by its significant inflammatory component, with lymphocytes and eosinophils in the interstitium and generally demonstrates few papillary projections\textsuperscript{1}. In our case, no inflammatory component was observed. Progressive lymphangioma may be confused with targetoid hemosideric hemangioma because it also demonstrates slit shaped, angulated lumina. This lesion, however, lacks the hemosiderin deposition and the superficial “hobnailed” endothelial cells\textsuperscript{9,10}. Our case shows hemosiderin deposit and hobnailed endothelial cells. Clinically, it is an erythematous patch or plaque, much larger in size than targetoid hemosideric hemangioma.

In conclusion, we present a typical form of targetoid hemosideric hemangioma.

\textbf{REFERENCE}