Clinicodermoscopic and immunohistochemical observation of hepatitis B virus-associated acquired bilateral telangiectatic macules in a Chinese man

Dear Editor,

Acquired Bilateral Telangiectatic Macules (ABTM) was first reported as telangiectatic pigmented macules primarily on the upper arms in Korean patients with underlying Chronic Liver Disorder (CLD). To date 65 Korean cases and one Chinese case have been reported. Dermoscopy was useful to improve its clinical diagnosis. We describe the clinicodermoscopic and immunohistochemical features of hepatitis B virus-associated ABTM in another Chinese patient.

A 48-year-old Chinese man presented with asymptomatic telangiectatic macules that commenced on the left arm 2.5 years ago and gradually extended to upper limbs and torso. He had a 30-year history of hepatitis B with mildly abnormal liver enzymes during the last three years. Liver enzymes reduced but telangiectasis remained unchangeable after a 1-month course of oral compound glycyrrhizin and glucuronic lactone. No further treatments were given thereafter. There was no history of smoking, drinking, diabetes, hypertension, and ataxia. On examination, multiple, irregular, dark red telangiectatic macules with negative Darier’s sign were mainly distributed on the chest and upper limbs (Fig. 1a) and less on the face and upper back. No spider nevus, palmar erythema, mucosal lesion, neither hepatosplenomegaly were noted. Dermoscopy revealed tortuous/arborizing vessels and diffuse brownish pigmentation (Fig. 1b). The leucocyte count was $10.2 \times 10^9/L$ with 90% neutrophils. Biochemical examination showed elevated alanine (86.5 U/L) and aspartate aminotransferases (69.9 U/L), and normal coagulation function, glucose, lipids, estradiol, and testosterone. HBSAg, HBeAg, and PreS1Ag were positive, but anti-nuclear antibody was negative.

Light Microscopy displayed an unremarkable epidermis with basal hyperpigmentation, capillary proliferation, and dilated capillaries with mild infiltration of perivascular lymphohistiocytes in the upper dermis (Fig. 2). Giemsa stain and CD117 immunostaining demonstrated a few mast cells (Fig. 3a). Melan-A and S100 immunostaining found normal melanocytes in the epidermis (Fig. 3b). The patient was diagnosed with ABTM, and his lesions remained stable during a 16-month follow-up without specific treatment.

ABTM, Acquired Bilateral Neviod Telangiectasia (ABNT) and Telangiectasia Macularis Multiplex Acquisita (TMMA) are three newly described Acquired Bilateral Telangiectasia (ABT) in Korea and China. The causative factors include CLD, hypertension, diabetes, smoking, and factor V, but true pathomechanism remains elusive. Both ABTM and ABNT are overwhelming in Koreans, while TMMA seems to be peculiar in Chinese. They frequently affect middle-aged men and are often associated with underlying diseases (especially CLD). Clinically, ABTM features two lesional components (brown pigmentation and telangiectasia) mostly on upper arms, ABNT manifests as superficial telangiectasia on the upper body, and TMMA presents as crops of telangiectatic vessels superimposed on erythematous macules on the arms and trunk. The widespread telangiectasia or trunk involvement are liable to have associated CLD. Histologically, the key features of ABTM, ABNT, and TMMA are respectively dermal telangiectasias with epidermal hyperpigmentation; dermal telangiectasia with normal epidermis; and mild perivascular lymphohytic infiltration with or without telangiectasia. Absence of dermal telangiectasia might be due to vasoconstriction induced by epinephrine in local anesthetics. Collectively, the clinicopathological characteristics of these three ABT have not been well defined because of small samples, relatively heterogeneous patients, and clinical/morphological resemblance among the three diseases. Even if there are some histological differences: epidermal pigmentation, perivascular lymphohytic infiltrate, and dermal telangiectasia, they are minimal.

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Study conducted at the Department of Dermatology, Affiliated Hospital of Guangdong Medical University, Zhanjiang, Guangdong, China.
Figure 1  Clinico-dermoscopic features of ABTM: (a), Telangiectatic erythematous macules on the chest and upper limbs. (b), Dermoscopy revealing tortuous/arborizing vessels and diffuse brownish pigmentation on the chest (×30).

Figure 2  Histopathology of ABTM: (a), Basal hyperpigmentation, capillary proliferation, and dilated capillaries with mild infiltration of perivascular lymphohistiocytes in the upper dermis (Hematoxylin & eosin, ×100). (b), Hyperpigmentation in the basal layer of epidermis (Fontana-Masson, ×200).

Figure 3  Immunohistochemistry of mastocytes and melanocytes in ABTM: (a), A few CD117 positive mast cells (arrows) around the dilated capillaries in the papillary dermis (×200). (b), Normal Melan-A positive melanocytes in the epidermis (×200).
They are hard to distinguish from each other in clinical practice because of their clinicopathological similarity or overlap. In line with the opinion of Kim et al., we believe that the three disorders are the same disease entity and propose the use of the Latin term “telangiectasia macularis multiplex acquisita”.1 In addition, Telangiectasia Macularis Eruptiva Perstans is similar to these entities, but histologically the presence of a mastocyte infiltrate can differentiate them.1

Dermoscopy displayed brown pigmentation, linear-irregular vessels, and angiod streak pattern in ABTM, corresponding to basal hyperpigmentation and dermal telangiectasia, respectively. Angiod streak pattern was defined as a central arteriole with superficial radiating small vessels, maybe representing a minor form of spider angioma.1 The severity and prevalence of angiod streak patterns were higher in ABTM patients with CLD than in those without CLD, but it was absent in our case.1

In conclusion, dermoscopy is useful to observe the inconspicuous pigmentation and telangiectasia in ABTM, but the potential value of the angiod streak pattern for the evaluation of underlying CLD remains to be verified. There is no convincing evidence to create several different names for ABT.

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Authors’ contributions

Zi-Wei Zhang: Conception and planning of the study; obtaining, analyzing, and interpreting the data; writing of the manuscript.

Hao Wu: Planning of the study; obtaining, analyzing, and interpreting the data; writing of the manuscript.

Ke-Feng Tang: Obtaining, analyzing, and interpreting the data.

Yi-Ming Fan: Conception and planning of the study, obtaining, analyzing, and interpreting the data, critical revision of the manuscript, and approval of its final version.

Conflicts of interest

None declared.

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Pigmented poroma on the scalp clinically mimicking basal cell carcinoma∗,**

A 73-year-old Japanese woman visited our department complaining of a nodule on the scalp which had appeared four years previously. Physical examination revealed a 12-mm semi-pedunculated black nodule on the left side of the head (Fig. 1). Dermoscopic examination showed large blue-gray ovoid nest-like structures, irregularly dilated vessels, and erosions. Histopathological examination showed a nodular tumor extending from the epidermis into the mid-dermis (Fig. 2). The tumor was composed of small round cells that had a high nucleocytoplasmic ratio, with small pores, which are features of sweat duct differentiation features of poroid differentiation into small ductal structures (Fig. 3). There were no histopathological features suggestive of basal cell carcinoma (BCC). Some of the tumor cells contained melanin granules, and an increased number of melanocytes, confirmed by HMB-45 staining and MART-1 staining, was observed within the nests. Also, many melanophages were observed in the stroma. After making a diagnosis by punch biopsy, the nodule was removed under local anesthesia.

Ecocrine poroma is a benign adnexal tumor mainly composed of poroid cells and often present as a reddish nodule. While ecocrine poroma does not appear to have a bias for occurrence between races, pigmented variants

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