Dermoscopic patterns of dermatofibroma in 72 Chinese patients

Juliandri Juliandri, Xiao-Yan Wang, Zi-Jing Liu, Jia-Wen Zhang, Yang Xu

Department of Dermatology, the First Affiliated Hospital of Nanjing Medical University, Nanjing, Jiangsu 210029, China.

To the Editor: Dermatofibroma is a very common benign tumor of the skin composed of fibrohistiocytic cells, which may occur anywhere on the body surface with a predilection for the extremities in adult patients. Clinically, dermatofibromas appear as firm, single or multiple hard papules, plaques or nodules, with a smooth surface, the usual color varying from light brown to dark brown, purple red or yellow. Characteristically, the lateral compression of these tumors may produce a dimple-like depression in the overlying skin, a feature known as the dimple sign.[1] Dermoscopy is a non-invasive method used in the diagnosis and management of pigmented skin tumors.[1-4]

This study evaluated the dermoscopic patterns of dermatofibromas in 72 Chinese patients who visited the Outpatient Department of Dermatology, Jiangsu Province Hospital between January 2018 and April 2019. The study was approved by the Ethic Committee of Jiangsu Province Hospital. Informed consent was obtained from all the patients. Clinical data including patients' age and gender, location and the characteristics of the lesions were obtained. All the dermatofibromas were examined using the dermoscope (DermLite® DL1, 3 Gen Inc., San Juan Capistrano, CA, USA) in contact mode with polarized light. Each lesion was subsequently excised, and the diagnosis of dermatofibroma was histopathologically confirmed. Ultimately, each lesion was scored for global and local dermoscopic patterns as previously reported.[2] Statistical analysis was performed using the Chi-square test and P values <0.05 were considered statistically significant. All the data were analyzed using SPSS software (version 20.0; SPSS Inc, Chicago, IL, USA).

Data of 82 dermatofibromas from 46 women (63.9%) and 26 men (36.1%) were analyzed. The ratio of women to men was 1.8:1. The age of the patients ranged from 18 to 71 years (median age 40 years). Specifically, women had more dermatofibromas (on the limb: $n = 42$, 51.2%; on the trunk: $n = 10$, 12.2%) than men (on the limb: $n = 19$, 23.2%; on the trunk: $n = 11$, 13.4%, respectively). More dermatofibromas appeared on the limb ($n = 61$, 74.4%) than on the trunk ($n = 21$, 25.6%). The most common clinical aspects were papules ($n = 42$, 51.2%).

We observed all the dermoscopic patterns that Zaballos *et al*[1] identified. Most of the lesions ($n = 17$, 20.7%, Figure 1C) were shown in type three pattern with peripheral delicate pigment network and central white network followed by multiple white scarlike patches pattern ($n = 11$, 13.4%, Figure 1H), total delicate pigment network pattern ($n = 11$, 13.4%, Figure 1A), total homogeneous area pattern ($n = 9$, 11.0%, Figure 1F), peripheral delicate pigment network and central white scarlike patch pattern ($n = 7$, 8.5%, Figure 1B), peripheral homogeneous area and central white scarlike patch pattern ($n = 7$, 8.5%, Figure 1I), peripheral delicate pigment network and central homogeneous area pattern ($n = 6$, 7.3%, Figure 1D), total white network pattern ($n = 6$, 7.3%, Figure 1E), atypical pattern ($n = 4$, 4.9%, Figure 1K), total white scarlike patch pattern ($n = 2$, 2.4%, Figure 1G) and peripheral homogeneous area and central white network pattern ($n = 2$, 2.4%, Figure 1J). There were no specific subtypes in relation to age, sites of lesions and gender ($P > 0.05$). Most of peripheral delicate pigment network and central white network pattern was observed on the limb ($n = 15$, 18.3%), whereas most of peripheral delicate pigment network and central homogeneous pattern area was observed on the trunk ($n = 5$, 6.1%). Peripheral delicate pigment network and central white network (8.5%) was the most predominant pattern in the youngest age group ($\leq$40 years), older individuals aged 41 to 60 years (8.5%), and population aged over 60 years (3.7%). Peripheral delicate pigment network and central white network was the most predominant pattern in both men (9.8%) and women (10.9%).

In this study, the most prevalent dermoscopic pattern of dermatofibroma was peripheral delicate pigment network and central white network, accounting for 20.7% of lesions. The differences of major distribution of the patterns may be explained by the particularity of the skin phototype. Kelati *et al*[4] described new dermoscopic patterns such as

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Correspondence to: Dr. Yang Xu, Department of Dermatology, the First Affiliated Hospital of Nanjing Medical University, Nanjing, Jiangsu 210029, China
E-Mail: cardioos@163.com

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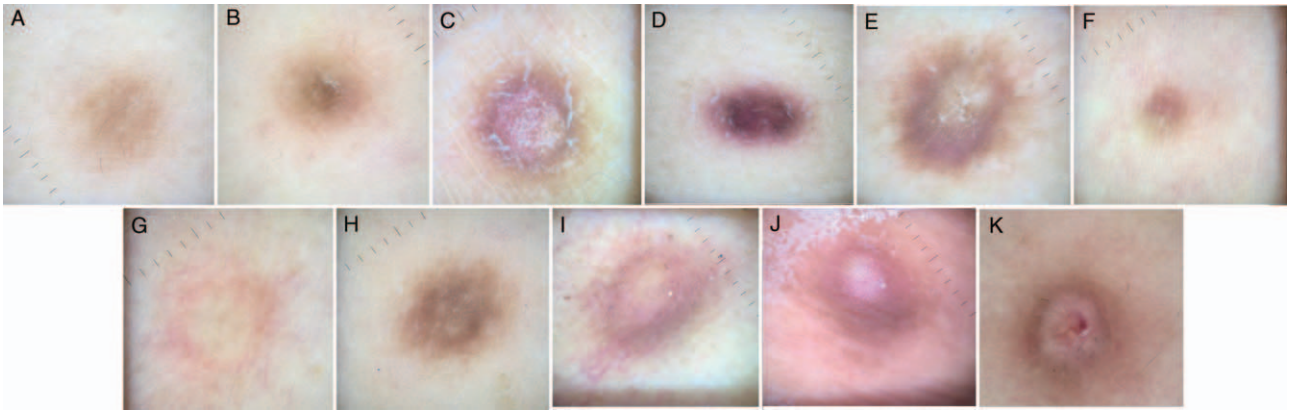

Figure 1: Dermoscopic patterns of dermatofibromas (original magnification × 10). (A) Total delicate pigment network; (B) Peripheral delicate pigment network and central white scarlike patch; (C) Peripheral delicate pigment network and central white network; (D) Peripheral delicate pigment network and central homogeneous area; (E) Total white network; (F) Total homogeneous area; (G) Total white scarlike patch; (H) Multiple white scarlike patches; (I) A peripheral homogeneous area and central white scarlike patch; (J) Peripheral homogeneous area and central white network; (K) Atypical pattern.

pigmented ring around the follicular openings in dark-skinned patient which was different from small ring like structures or reported globule with a darkerperipheral rim forming a kind of network.[2,5] The major distribution of subtype 3 with peripheral delicate pigment network and central white network in Chinese people may due to Fitzpatrick skin phototype (phototype III).

Conflicts of interest

None.

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