

Peripheral Radial Vessels: A Dermoscopic Finding in Annular Lichen Planus: Case Report

Periferel Radyal Damarlar: Anüler Liken Planusta Dermoskopik Bir Bulgu

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ABSTRACT Annular lichen planus is a clinical variant of lichen planus characterized with annular violaceous or hyperpigmented plaques with hyperpigmented or skin-colored center, and slightly raised borders. It can be scattered among typical lichen lesions, or it can be observed as a predominant lesion. Literature data about dermoscopic features of annular lichen planus is limited. Herein we report a case with annular lichen lesions with dermoscopic features. On dermoscopic examination of all annular lichen lesions, we observed peripheral radial vessels in dependent of the lesion durations. To the best of our knowledge, such a vascular pattern has not been previously reported in other annular lesions. So this dermoscopic finding may help in differential diagnosis of annular lesions.

Key Words: Lichen planus; dermoscopy

ÖZET Anüler liken planus, hiperpigmente veya deri renginde merkez ve etrafında hafif eleve sınırlar izlenen morumsu veya hiperpigmente anüler plaklar ile karakterize bir liken planus varyantıdır. Tipik liken lezyonları ile birlikte olabilir, ya da baskın lezyon olarak da izlenebilir. Anüler liken planusun dermoskopik bulgularına dair literatür bilgisi kısıtlıdır. Bu makalede, dermoskopik bulguları eşliğinde bir anüler liken vakasını sunmayı amaçladık. Vakamıza ait tüm anüler liken lezyonlarının dermoskopik incelemesinde lezyon süresinden bağımsız olarak periferel radyal damarlar izlendi. Bildiğimiz kadarıyla, daha önce diğer anüler lezyonlarda benzer bir damarsal patern bildirilmemiştir. Bu yüzden bu dermoskopik bulgu anüler lezyonların ayrıntı tanısında yardımcı olabilir.

Anahtar Kelimeler: Liken planus; dermoskopi

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Lichen planus is an idiopathic chronic inflammatory skin disease affecting skin, hair, nails and mucous membranes. Classic lichen planus is characterized with pruritic, small, and violaceous papules favoring the flexor surfaces of the extremities.¹ Annular lichen planus is a rare clinical variant affecting about 10% of patients and it is characterized with annular lesions with hyperpigmented or skin-colored center and slightly raised purple to white peripheral borders.² Annular lesions may be scattered among more typical lesions, or may be found as an isolated finding.² Literature data about dermoscopic features of annular lichen planus is very

limited. Herein we report a case with annular lichen lesions with dermoscopic features.

CASE REPORT

A 27-year old male presented with a 2-year history of asymptomatic plaques on trunk and lower extremities and recent onset lesions on upper extremities. Dermatological examination revealed multiple annular and arcuate erythematous plaques on trunk and extremities (Figure 1). Non-polarized dermoscopic examination of plaques revealed a pe-

ripheral ring of radial vessels outlining whitish-yellowish structureless areas. In some plaques a second central vascular ring was also observed (Figure 2).

Histopathological examination of a recent onset plaque from upper extremity revealed focal hyperkeratosis, wedge-shaped hypergranulosis, vacuolar degeneration of the basal layer, subepidermal clefts, and band-like inflammatory infiltration in the upper dermis which were consistent with lichen planus (Figure 3).

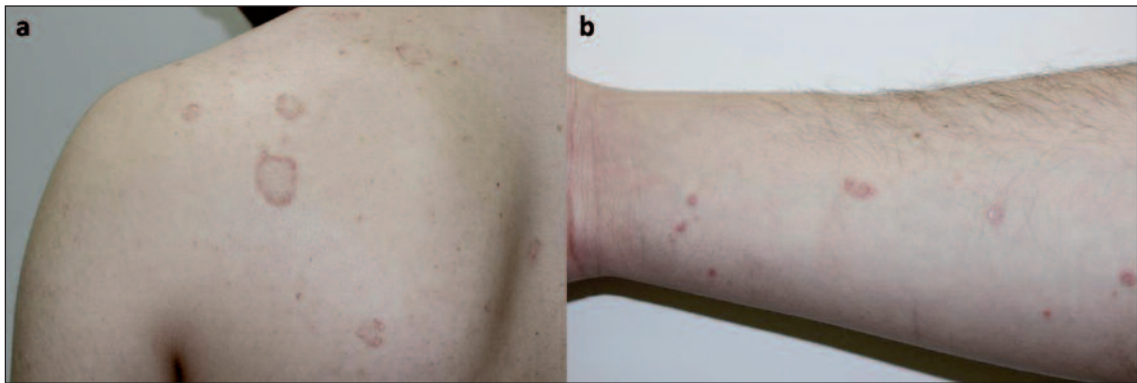


FIGURE 1: Multiple annular plaques located on trunk (a) and extremities (b).
(See color figure at <http://www.turkiyeklinikleri.com/journal/dermatoloji-dergisi/1300-0330/>)

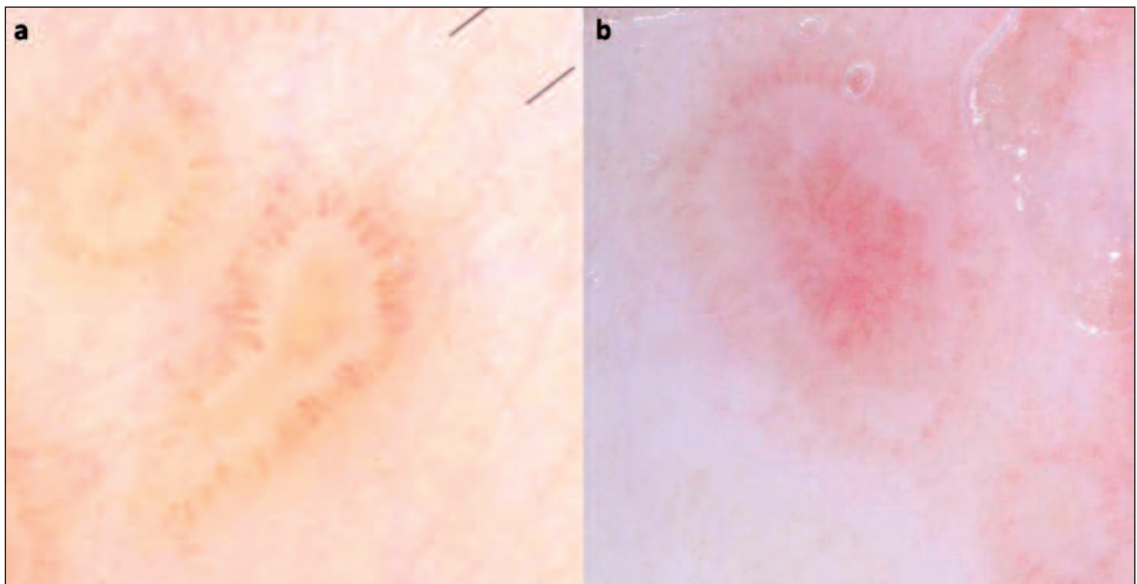


FIGURE 2: Peripheral radial vessels both in a lesion with undefined central vessels (a) and in a lesion with prominent central vascularity (b) (Heine Delta 20 plus nonpolarised dermatoscope, Heine Optotechnik, Herrsching, Germany; original magnification: $\times 10$).
(See color figure at <http://www.turkiyeklinikleri.com/journal/dermatoloji-dergisi/1300-0330/>)

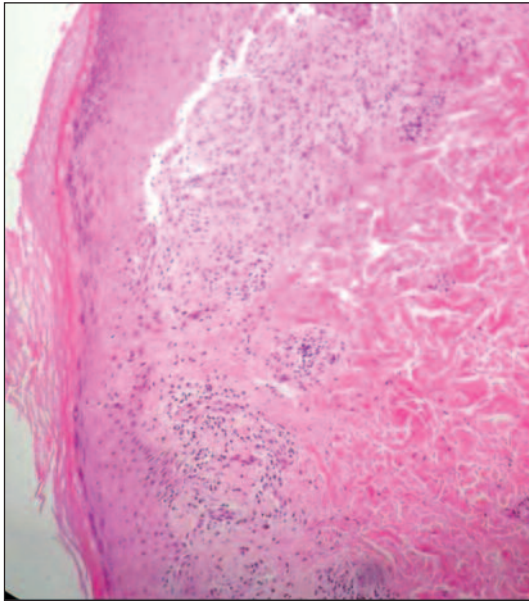


FIGURE 3: Focal hyperkeratosis, wedge-shaped hypergranulosis, vacuolar degeneration of the basal layer, subepidermal clefts and band-like inflammatory infiltration in the upper dermis (HE $\times 10$).

(See color figure at <http://www.turkiyeklinikleri.com/journal/dermatoloji-dergisi/1300-0330/>)

DISCUSSION

In previous studies it has been reported that dermoscopic visualization of Wickham striae (WS) is a highly sensitive and specific criterion for the diagnosis of lichen planus which is classically seen as reticular whitish striae (classical lichen planus) or ring form whitish striae (annular lichen planus) surrounded by dotted or linear vessels.³⁻⁶ However WS may not be observed in all lichen planus lesions due to variations in skin colour, lesion morphology or lesion sites.⁶ Furthermore it is also known that stages of the lichen planus lesions may

effect the dermoscopic findings, such pigmentation may develop and vascularity is usually less evident in late lichen planus lesions.³ Similarly in our case, WS was not well defined in all lesions and central vascularity was not prominent in some lesions which were suggested to be due to different lesion durations. However, the peripheral ring of radial vessels were well defined in all lesions. Similarly, previously peripheral radially arranged capillaries have been reported among typical dermoscopic features of lichen planus.⁷ The exact cause of this radial arrangement has not been previously clearly defined, however, probably radial arrangement corresponds to orientation of dilated blood vessels in the superficial dermis on histopathology of lichen planus. Data on microscopic orientation of vessels in lichen planus are limited, however a recent report on reflectance confocal microscopy imaging of lichen planus showed that dilated vessels in lichen planus were often seen in the dermis, and oriented horizontally within the dermal papillae.⁸ Radial vessels have also been previously reported among dermoscopic features of sebaceous hyperplasia and keratoacanthoma, which are easily distinguished from annular lichen planus based on clinical and additional dermoscopic findings.^{9,10} In addition, to the best of our knowledge such a specific vascular pattern has not been previously defined in other annular lesions.

In conclusion, on dermoscopic examination of annular lichen planus, peripheral radial vessels can be observed, and this finding may help in differential diagnosis of annular lesions.

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