

Case 17

A 29 year-old man from Bangkok

Chief complaint: Persistent erythematous plaques on both arms for 20 years



(Fig. 17.1)

Present illness: Progressive and persistent erythematous plaques on both arms for 20 years without any systemic symptoms

Past history: No known underlying disease

Physical examination

No lymphadenopathy

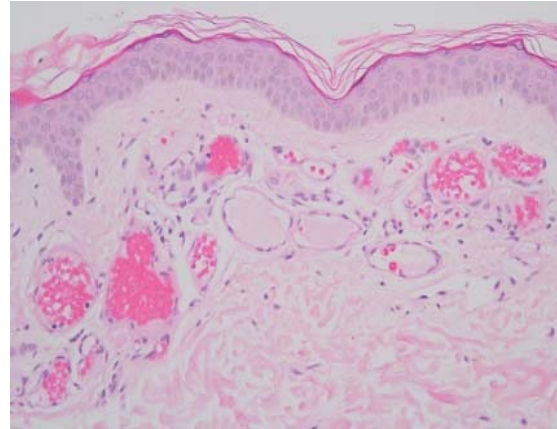
No hepatosplenomegaly

Dermatological examination:

 (Fig.17.1)

Multiple ill-defined non-blanchable erythematous macules, some confluent into plaques on both arms

Histopathology

 (S16-039299, Right arm) (Fig. 17.2)

(Fig. 17.2)

- Proliferation of dilated, thin wall capillaries in the upper dermis

Diagnosis: Angioma serpiginosum

Laboratory investigations:

- CBC: Hct 44%, WBC 6,690 cells/ μ L (N 48%, L 43%, Mono 6%, Eo 2%, Ba 1%), Platelets 315,000 cells/ μ L
- LFT: AST 22 U/L, ALT 26 U/L, ALP 46 U/L, GGT 12 U/L
- BUN: 19 mg/dL, Cr: 0.97 mg/dL
- HBsAg: Negative, Anti-HBS: Negative, Anti-HCV: Negative
- Uric acid 5.7 mg/dL

Treatment: Pulsed Dye Laser

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Discussion:

Angioma serpiginosum was first described by Hutchinson in 1889. The lesion consists of multiple, minute, red to purple grouped macules in serpiginous and gyrate patterns that extend over a period of months or years. The lesion may have an erythematous, and violaceous background hue.^{2,3} Although bilateral asymmetric cutaneous involvement has been reported,⁷ it usually appears unilaterally, at least at the beginning.²

Histopathologically, angioma serpiginosum shows solitary or widely grouped dilated capillaries in the papillary dermis.¹ There is no inflammatory infiltration.² No erythrocyte diapedesis or hemosiderin pigmentation is present.³

Patients with angioma serpiginosum can undergo unnecessary hematological tests, because the lesion of this disorder simulates purpura. Therefore, the distinction between purpuric dermatoses and angioma serpiginosum is important.⁹ Well-demarcated red lagoons, the red color of lagoons reflects the superficial nature of angioma serpiginosum, which is composed of dilated capillaries in the papillary dermis. While, irregularly shaped red patches with blurred borders without red lagoons were observed in purpuric eruptions

Pulsed dye laser is effective in the treatment of various vascular lesions. This laser achieves selective photothermolysis,

leading to selective vascular injury without unwanted thermal damage to surrounding tissue.¹¹ Although the original investigators used the wavelength of 577 nm that allows vascular injury in the papillary dermis, the wavelength has been later modified to 585 nm. Both wavelengths are emitted at a pulse width of 330 to 450 μ s, which can allow for specific damage to the superficial cutaneous blood vessels most commonly found in a variety of cutaneous diseases.¹² Recently, pulsed dye lasers with longer wavelengths (590, 595 and 600 nm) and longer pulse durations (1.5-40 msec) have been developed. These laser systems are able to effect relatively deep tissue penetration using large spot sizes and higher fluences.¹¹ This higher energy and longer pulse width could lead to even better treatment of mature, nodular hypertrophic port-wine stains, occasional hemangioma, and larger or deeper facial telangiectasias.¹³ The effective results with the traditional pulsed dye lasers are consequent with the superficial nature of angioma serpiginosum showing widely dilated capillaries in the papillary dermis.

Our patient was treated with pulsed dye laser (V-beam perfecta[®]) *every two months*. He had gradually improvement.

References:

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