



Penile Angioma Serpiginosum - A Rare Case

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Abstract

Angioma serpiginosum is a rare vascular anomaly characterised by presence of multiple erythematous asymptomatic macules or papules organised in small clusters forming a serpiginous pattern. It is rarely associated with extracutaneous findings.

It is most commonly seen in extremities and lesions over the genital region are rarely reported. We hereby report an unusual case of a 45 years old male with penile angioma serpiginosum. The histopathological findings were consistent with angioma serpiginosum.

Introduction

Angioma serpiginosum is a rare acquired vascular malformation due to ectatic dilation and proliferation of vessels in the papillary dermis.^[1]

Its prevalence is reported to be less than 1:1000000. It usually affects teenage females and in 90% cases has its onset before the age of 16 years.^[2]

It is characterised by the onset of vascular erythematous macules and papules which may coalesce over a period of time forming serpiginous pattern.

Lesions are typically unilateral and located on the extremities with a predilection for lower limbs and buttocks.^[3]

It is rarely associated with extracutaneous findings.

Angioma serpiginosum evolves from the proliferation of endothelial cells and formation of

new capillaries and not merely by dilation of pre-existing capillaries.

Histologically, it is characterized by dilatation and proliferation of vessels in the papillary dermis.^[4]

The occurrence of angioma serpiginosum on the penile region is very rare.

We hereby report a rare/ unusual case of a 43 years old male with asymptomatic erythematous papules over the penile region. The histopathological findings were consistent with angioma.

Case Report

A 43 year old male presented for an evaluation of the asymptomatic vascular lesions involving corona and shaft of his penis, which had been present for 10 years and would occasionally bleed. Examination revealed multiple reddish-purple papules distributed against a reddish background

on the corona and shaft of his penis with ranging in size from 0.5 mm to 3 mm (Figure 1). With clinical possibilities of angiokeratoma and angioma serpiginosum, the biopsy was performed. Histopathological examination showed a substantial increase in the number of dilated slightly thick walled capillaries within the papillary and upper reticular dermis. A few capillaries in superficial and deep plexus were also dilated. Sparse superficial perivascular lymphohistiocytic infiltrate was present. Overlying epidermis was unaffected. It was consistent with angioma serpiginosum. In our case no treatment has been performed because the patient does not complain esthetical damage.



Figure 1- multiple erythematous papules distributed against a reddish background on the corona and shaft of penis.

Discussion

Angioma serpiginosum is a rare, benign vascular proliferation characterized by the onset of erythematous macules and papules, grouped in a serpiginous pattern.^[3]

AS occurs at all ages, more frequently in childhood, with a female/male ratio of 9:1.^[5]

Angioma serpiginosum evolves from the proliferation of endothelial cells and formation of new capillaries and not merely by dilation of pre-existing capillaries.

The exact pathogenesis has not been known. It has been disapproved that estrogen and progesterone have any role in its pathogenesis, as considered in the past.^[6]

It is now considered to be an abnormal vascular response resulting in newly formed capillaries that lead to large ectatic vessels in the papillary dermis.^[6]

Lesions are typically unilateral and frequently located on the extremities with a predilection for lower limbs and buttocks.^[3]

The histopathologic findings of dilated blood vessels in the papillary dermis with absence of other changes.

In present case the other differential considered was angiokeratoma. The histology of angiokeratoma shows epidermis showing variable degrees of acanthosis with elongation of the rete ridges and hyperkeratosis. The other differential of angioma serpiginosa includes unilateral nevroid telangiectasia syndrome, acquired port wine stain and pigmented purpuric dermatoses.^[7]

On the basis of clinical and histopathology findings, these differentials were ruled out.

The angioma serpiginosum is slowly progressive despite long periods of relative stability. Spontaneous resolution is unusual and occurs late in the course, if at all. However the lesions have no association with systemic disease.

The treatment is indicated only for cosmetic reasons. Various lasers have been found to be effective in treating angioma serpiginosum including Argon laser, tunable pulsed dye laser (PDL), and intense pulsed light (IPL).

In our case no treatment has been performed because the patient does not complain esthetical damage.

Declaration of Patient Consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient (s) has/have given his/her/ their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be

published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Conflict of Interest: Nil

References

1. Namazi MR, Handjani F. Angioma serpiginosum. *Dermatol Online J*2003;9:19.
2. Erkek E, Bozdogan O, Akarsu C, Atasoy P, Koçak M. Absence of estrogen and progesterone receptors around the affected vessels of angioma serpiginosum: Case report. *Am J Clin Dermatol* 2006;7:383-6.
3. Kalisiak MS, Haber RM. Angioma serpiginosum with linear distribution: case report and review of the literature. *J Cutan Med Surg.* 2008;12:180–3.
4. Chen JH, Wang KH, Hu CH, Chiu JS. Atypical angioma serpiginosum. *Yonsei Med J.* 2008;49:509–513.
5. Savant SS, Das A, Kumar P, Hassan S. Late-onset Segmental Angioma Serpiginosum. *Indian J Dermatol.* 2016;61:226–7.
6. Bayramgurler D, Filinte D, Kiran R. Angioma serpiginosum with sole involvement. *Eur J Dermatol*2008;18:708-9.
7. Sancheti K, Das A, Podder I, Gharami RC. Angioma serpiginosum in a patchy and blaschkoid distribution: A rare condition with an unconventional presentation. *Indian J Dermatol* 2016;61:570-2.