Research Paper

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Zosteriform Piloleiomyoma - A Rare Clinical Presentation

Medical Science

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Dr. Sanjiv Choudhary — Professor, Department of Dermatology, Jawaharlal Nehru Medical College, Sawangi,Wardha, India.

Dr. Prashant Mahajan — Resident(JR3), Department of Dermatology, Jawaharlal Nehru Medical College, Sawangi,Wardha, India

ABSTRACT

Piloleiomyoma is a benign tumour of arrector pili muscle of hair follicle. It is one of the differential diagnoses of painful, tender, papulonodular skin lesions like granular cell tumor, eccrine spiradenoma, dermatofibroma, neuroma, neurilemmoma, glomus tumor, angiolipoma and endometrioma. It can present with different patterns like linear, zosteriform, multisegmental and blaschkoid. We are presenting a 30 year old female patient with rare zosteriform, painful, papulo-nodular lesions and classical histopathological findings suggestive of piloleiomyoma.

Introduction:

Leiomyomas are benign tumor of smooth muscle and depending upon their site of origin they can be classified into 3 types- piloleiomyoma (arrector pili muscle of hair follicle), angioleiomyoma (vascular smooth muscle) and dartoic leiomyoma (smooth muscle of genital skin). Piloleiomyoma is usually associated with pain either spontaneous or secondary to cold, pressure or emotion. Pressure of tumor on local nerve fibers and contraction of smooth muscle fibers are responsible for pain.

Interlacing bundle of spindle shaped cells of dermal smooth muscle with centrally elongated nucleus in histopathology confirms the diagnosis of piloleiomyoma. Surgical excision is the choice of treatment for solitary painful lesions. Other destructive methods such as CO2 laser ablation, cryotherapy and electrosurgery have been used in treatment. In multiple painful lesions, use of alpha blockers, diuretics, calcium channel blockers, nitrates, ethaverine, analgesics, antidepressants and gabapentin have been reported.

Case report:

A 30 year old, married female presented with multiple painful solid raised lesions involving left side of back since past 5 years. Lesions used to become painful in winter season and by pressure. On examination patient revealed multiple, tender, grouped, papulo-nodular lesions distributed in dermatomal fashion involving left thoraic-7, 8, 9 dermatome (fig 1).

Figure 1: Dermatomal distribution of multiple, grouped papulo-nodular lesions involving left thoraic-7, 8, 9 dermatome.

There are many differential diagnoses for painful and tender nodular skin lesions and histopathological examination of skin punch biopsy is important for definite diagnosis. In our case histopathological examination of skin punch biopsy from nodular lesion with Hematoxylin & Eosin and Masson trichrome stain revealed abundant interlacing bundles of spindle shaped cells of smooth muscle involving dermis (fig 2). High power examination at 40 X revealed dermal smooth muscles showing eosinophilic cytoplasm and centrally elongated nuclei with blunt ends and perinuclear halo (fig 3).

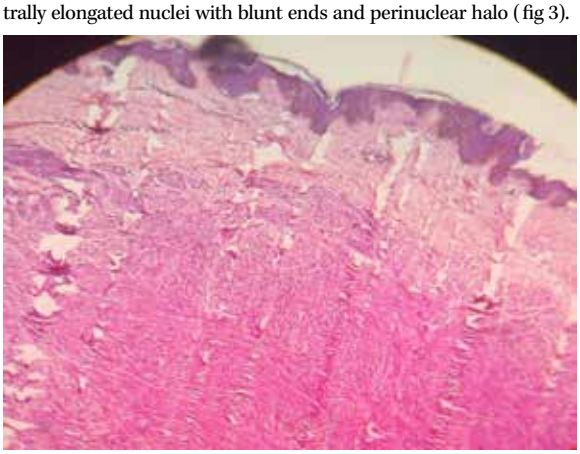

Figure 2: Masson trichrome stain (10 X) showing interlacing bundles of spindle shaped cells of dermal smooth muscle.

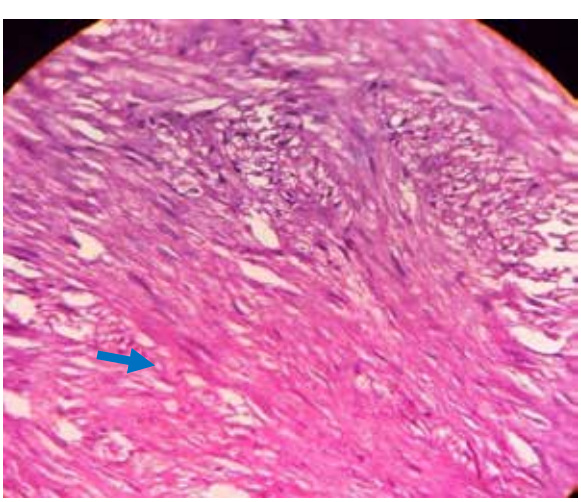

Figure 3: Masson trichrome stain (40 X) showing dermal smooth muscle in eosinophilic cytoplasm and centrally elongated blunt ends of nuclei with perinuclear halo.

Discussion:

Painful skin lesions such as granular cell tumors, eccrine spiradenoma, dermatofibroma, neuroma, neurilemmoma, glomus tumor, angiolipoma and endometrioma were the differential diagnosis in our case.[1] Presence of painful and tender lesions aggravated by pressure and cold sensation suggested the possibility of piloleiomyoma in our case.[2]

Multiple nodules of piloleiomyoma are distributed in different uncommon patterns like bilateral, linear, zosteriform, multisegmental and blaschkoid patterns.[3,4] The pathogenesis of zosteriform piloleiomyoma is heterozygosity of a postzygotic mutation as in segmental neurofibromatosis. In our case lesions had segmental distribution. Presence of interlacing bundle of spindle shaped cells of dermal smooth muscle with centrally elongated nucleus confirmed the diagnosis of piloleiomyoma.[5] The patient was put on nifedipine 10 mg tid and advised to undergo CO-2 laser excision. This case is presented for its rare zosteriform pattern of distribution & diagnostic histopathology.

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