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Original Research Paper

Dermatology

ATYPICAL PRESENTATIONS OF LEIOMYOMA CUTIS : A CASE SERIES

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ABSTRACT Leiomyoma cutis are rare, benign smooth muscle tumours characterised by painful nodules over face, back and extremities in most of the cases. They can be solitary or in multiple disseminated , segmental or zosteriform forms. Here we report three rare presentations of cutaneous leiomyoma- zosteriform cutaneous leiomyoma Type 1, leiomyoma on foot and asymptomatic leiomyoma in female patient, which were confirmed by dermoscopy and histopathology. Patients were planned for surgical excision and long term follow up in view of its association with renal malignancy. These cases are reported here for the uncommon presentations of a benign cutaneous neoplasm.

KEYWORDS : zosteriform, leiomyoma on foot, dermoscopy

INTRODUCTION-

Cutaneous leiomyomas are rare, benign painful tumours arising from smooth muscle cells. They may be asymptomatic, but are typically extremely painful(1). Cutaneous leiomyomas are classified into three subtypes based on their site of origin- Piloleiomyoma, angioleiomyoma and genital leiomyoma(2). They can be solitary or multiple. Clinically multiple Piloleiomyomas can have varied distribution as segmental (zosteriform), linear or disseminated forms(3). Although there are variable clinical manifestations of cutaneous leiomyoma, we present here three different cases of zosteriform cutaneous leiomyoma Type 1, leiomyoma on foot and painless presentation, which are very uncommon.

Case Series-

CASE 1- A 60 years old female presented with multiple raised skin colored firm, tender papules and nodules of varying size 0.5mm to 2cm, distributed over dermatomes C6-C8 in segmental distribution unilaterally on the posterior aspect of left shoulder extending to upper arm, of 6 months duration associated with History of burning pain which exacerbated on exposure to touch. There was no history of trauma and No similar or other lesions were seen at other sites. With this presentation and history, zosteriform cutaneous leiomyoma, multiple eccrine spiroadenoma and neurofibroma were the differentials considered. Dermoscopy showed delicate pigment network with thin lines of pinkish light brown color, regularly distributed and faded into surrounding skin. Histopathology showed Bundles and fascicles of spindle shaped smooth muscle cells with abundant eosinophilic cytoplasm arranged in an interlacing and whorled pattern with elongated nuclei having round ends which confirmed the diagnosis of zosteriform cutaneous leiomyoma Type 1. Patient was advised tab nifedipine 10mg OD for pain relief and referred to plastic surgery for further management.

Case 2-

- A 22 years old female presented with multiple, asymptomatic soft to firm swellings of size 1*1 cm on soles and lateral side of foot, not increasing in size for duration of 2 years. There was no history of trauma or continuous pressure exerted on the feet. Rest of the clinical examination was normal. Differentials considered were Leiomyoma cutis, lipoma and Piezogenic pedal papules. FNAC was advised. Cytology examination showed scant cellular cytosmear with sheets of benign looking spindle shaped cells in haemorrhagic background. Impression of benign spindle cell lesion was considered. Hematoxylin and eosin stain showed epidermis lined by keratinised stratified squamous epithelium. Dermis showed bundles and fascicles of smooth muscle cells with eosinophilic cytoplasm, cigar shaped nuclei and abundant extracellular matrix. Thus, final diagnosis of cutaneous leiomyoma was made.

Case 3-

- A 20 years old female presented with multiple painless firm to hard swellings of variable size 0.5 cm to 1.5 cm over left forearm for 2 years. There was No history of trauma and No lesions were present at other sites. Based on presentation, following differentials were considered Leiomyoma cutis, Dermatofibroma and Neurilemmoma. Histopathology showed dermis with interlacing fascicles of spindle shaped cells with eosinophilic cytoplasm and blunt cigar shaped nuclei, confirming the final diagnosis of cutaneous leiomyoma. Patient was further referred to surgery for its complete excision.

DISCUSSION-

Cutaneous leiomyomas are rare, benign painful tumors arising from smooth muscles(4). _Skin is the second most common location for leiomyoma after the uterus, constituting ~5% of all_leiomyoma(1). Incidence is more in adults than children. Both male and female are equally affected(2). Cutaneous leiomyomas are of three different subtypes according to their site of origin, Pilo leiomyoma, angioleiomyoma and genital leiomyoma(5).

Pilo leiomyomas is the most common subtype(3). Most common sites of presentation are face, back and extensors of extremities(6). They can have multiple disseminated (diffuse), segmental (zosteriform) or solitary presentation(7). Zosteriform leiomyoma is categorized as Type I zosteriform leiomyoma characterized by presence of dermatomal distribution only as in our case 1, while in Type II there are segmental lesions superimposed on scattered, isolated, nonsegmental lesions(8)

Around 8% of all benign soft tissue lesion occurs on foot(9), most common being giant cell tumour, lipoma and

leiomyoma(10). Overall incidence of soft tissue foot tumours is less(9), even these most common neoplasms are infrequently diagnosed. Leiomyoma are usually painful tumours (2) due to local pressure exerted on the cutaneous nerves or due to local ischemia caused by muscle contraction but can be asymptomatic also(11), as in our case 3, although very rare.

Diagnosis is mainly based on histopathology which classically shows interlacing fascicles of spindle-shaped cells showing moderate amount of fibrillary eosinophilic cytoplasm and blunt-ended cigar-shaped nuclei.(2)

Treatment of choice is surgical excision(6). However, recurrence is common. Pharmacological treatment includes nifedipine, oral nitroglycerine for painful multiple lesions(6). Cryotherapy and Co2 laser ablation have also been tried with some satisfactory results in various studies.

In conclusion, we presented here case series of different presentations of Leiomyoma cutis,as there is limited literature on its varied clinical presentations and dermoscopic features. These form an important clinical differential diagnosis of painful papulonodular lesions and must be diagnosed properly, in order to differentiate them from spindle cell lesions like dermatofibroma and neurofibroma. So, their proper and early detection and management are crucial as sometimes they may have uncommon clinical presentations and need long term follow up in view of its potential association with aggressive renal malignancy.

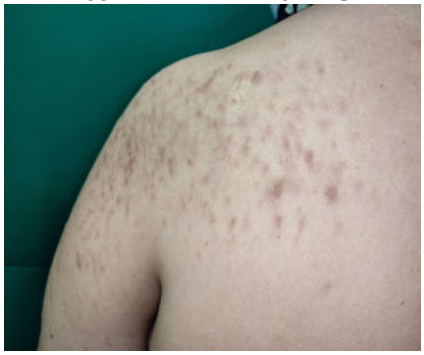

Figure 1- Multiple skin colored firm, tender papules and nodules over dermatomes C6-C8 d unilaterally on the posterior aspect of left shoulder extending to upper arm

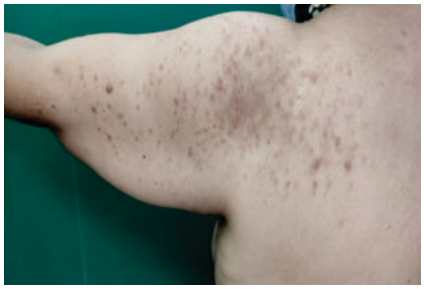

Figure 2- zosteriform distribution of cutaneous leiomyoma

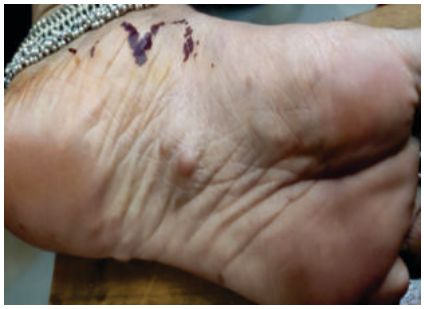

Figure 3- Multiple soft to firm swellings of size 1*1 cm over sole of left foot

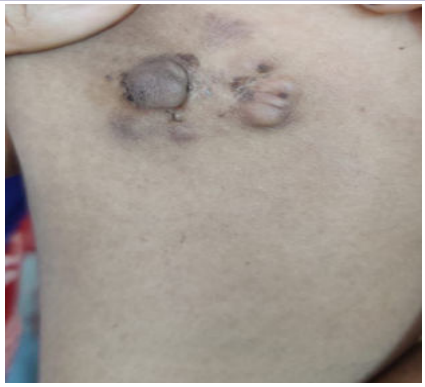

Figure 4- Multiple painless firm to hard papules and nodules of variable size 0.5 cm to 1.5 cm over left forearm

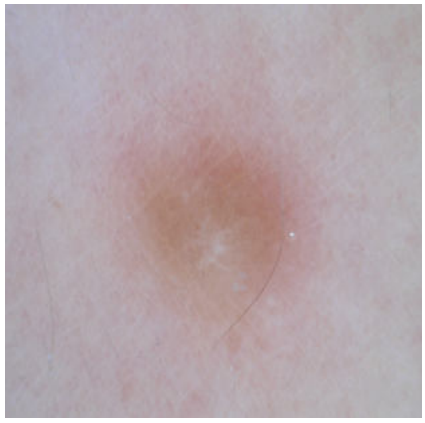

Figure 5 – Dermoscopy (dermlite 4 in 40x magnification) showed delicate pigment network with thin lines of pinkish light brown color, regularly distributed and faded into surrounding skin

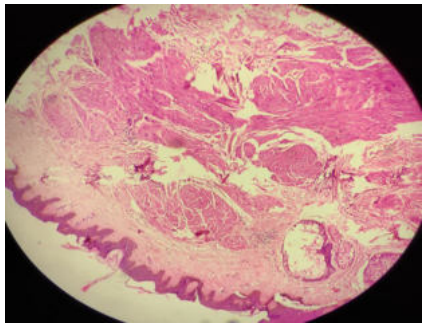

Figure 6 – H & E section shows dermis with Bundles and fascicles of spindle shaped smooth muscle cells with abundant eosinophilic cytoplasm arranged in an interlacing and whorled pattern

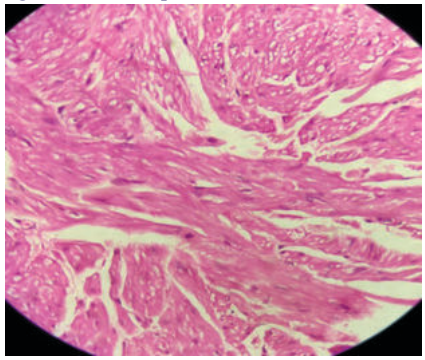

Figure 7- H & E section (40X magnification) shows Interlacing fascicles of spindle-shaped cells showing moderate amount of fibrillary eosinophilic cytoplasm and blunt-ended cigar-shaped nuclei

REFERENCES

1. Dilek, N., Yüksel, D., Şehitoğlu, İ., Saral, Y."Cutaneous leiomyoma in a child: A case report". Oncology Letters 5.4 (2013): 1163-1164.
2. Malhotra P, Walia H, Singh A and Ramesh V: Leiomyoma cutis: a clinicopathological series of 37 cases. Indian J Dermatol. 55:337–341. 2010.
3. Sahoo B, Radotra BD, Kaur I, Kumar B. Zosteriform pilar leiomyoma. J Dermatol. 2001;28:759-761.
4. Bhaskar S, Jaiswal AK, Madhu S, Santosh K. Unusual presentation of cutaneous leiomyoma. Indian J Dermatol. 2014 Nov;59(6):634.
5. Raj S, Calonje E, Kraus M, Kavanagh G, Newman PL, Fletcher CD. Cutaneous pilar leiomyoma: Clinicopathologic analysis of 53 lesions in 45 patients. Am J Dermatopathol. 1997;19:2–9.
6. Kaliyadan F, Manoj J, Dharmaratnam AD. Multiple cutaneous leiomyomas: pain relief with pulsed hysocine butyl bromide. Indian J Dermatol. 2009;54(1):72-4.
7. Vasani RJ. Unilateral segmental type II leiomyomatosis: a rare occurrence. Indian J Dermatol Venereol Leprol. 2012;78:521.
8. Gupta R, Singal A, Pandhi D. Skin-colored nodules in zosteriform pattern. Indian J Dermatol Venereol Leprol. 2005;72:81-82.
9. Buddemeyer, Katherine & McKissack, Haley & Farnell, Chason & Robin, Joseph & Qarmali, Morad & Basetty, Chandan & Washburn, Perry & Moraes, Leonardo & Shah, Ashish. (2018). Leiomyoma of the Foot: A Case Report. Cureus. 10. 10.7759/cureus.3419.
10. Szolomayer LK, Talusan PG, Chan WF, Lindskog DM. Leiomyoma of the Foot and Ankle: A Case Series. Foot & Ankle Specialist. 2017;10(3):270-273.
11. Nishan B, Vivekanand, Vishnu M, Raj S, Sivakrishna K, Vishal H, Lende V, Sravan C P, Chaudhari H, Rodney S R. Vascular leiomyoma of the leg. Indian J Vasc Endovasc Surg 2019;6:211-4.