Pseudoainhum in Acute Psoriasis
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ABSTRACT
The term Pseudoainhum is used in medical literature to elaborate the presence of constricting bands around the digits of hands and feet due to variety of etiologies. This phenomenon can lead to irreversible damage to the supplying neurovasculature and sequential autoamputation of the affected digits. The report herein, describes the rare presentation of pseudoainhum occurring concomitantly in acute psoriasis. Timely recognition of such rare disease entities by physicians is imperative to avoid unnecessary complications.

Key words: Ainhum. Pseudoainhum. Autoamputation. Psoriasis.

INTRODUCTION
Pseudoainhum is a rare and interesting disease entity that has been recognized for more than 50 years, now. The patient usually presents with constricting bands around one or many digits of hands or feet, with or without further progression to autoamputation of digits. Pseudoainhum is best defined as autoamputation of a sinlge or more digits not associated with the classic spontaneous and painful ainhum witnessed in African population, which is without a known etiology. It was originally described by Da Silva in 1980, who elaborated the condition as occurring in young Africans, involving the fifth toe and eventually progressing to bony resorption and amputation.1

Many case reports had been published with digital constrictions, of which some had been having similar presentation while other had differed from the original case, hence, the term “pseudoainhum” was coined. Pseudoainhum has an unpredictable disease duration that may vary from many weeks to years. Of the many findings, hyperkeratotic skin and sequential fissuring are consistently present. Other less common findings include digital degeneration and skeletal erosions.

CASE REPORT
A 76 years old gentleman presented to the Dermatology Department, Military Hospital, Rawalpindi in October, 2011, with one month history of red and scaly lesions over body and 3 weeks history of constricting band around his right little finger. It was associated with mild itching in lesions and swelling of digit, distal to constricting band. There was no previous history of trauma, fever, sore throat and pain in the right finger and joints. He denied any past history of medical illness, drug intake, personal and family history of any skin disorder.

On physical examination, there were multiple discrete and confluent annular scaly plaques over erythmatous background distributed symmetrically over dorsum of hands, feet, extensor aspect of elbows, knees, both sides of chest and lower back. A hyperkeratotic firm constricting non-tender band was visible around the distal part of right little finger (Figures 1 and 2). Distal neurovascular status of the finger was intact. Nail of the affected finger was showing longitudinal ridge with loss of cuticle, proximal nail fold erythema and mild degree of subungual hyperkeratosis.

Skin biopsy confirmed the diagnosis of psoriasis. Other laboratory values including complete blood picture, liver and renal chemistry, ASO titres and lipid profile were within normal limits. X-rays of the right hand were negative for bony abnormalities.

He was started with oral acitretin at the dose of 50 mg per day and twice daily application of topical clobetasol...
proprionate 0.05% ointment in dilution with white soft paraffin over the psoratic lesions and hyperkeratotic band. After 2 weeks of treatment, his lesions started settling with resolution of constricting band leaving behind an erythmatous glazed and smooth area (Figure 3).

**DISCUSSION**

Pseudoainhum can affect any or all of the digits and is usually divided in three categories. Primary pseudoainhum is associated with developmental anomalies usually present at birth. Secondary pseudoainhum develops later in life and is a result of an identifiable disease process. The third variant is associated with trauma and mechanical injury e.g. burns, frostbite and lacerations. Pseudoainhum usually begins as a circumferential groove, crease or constricting band. This initially presents superficially or as a deep groove which may reach upto the bone. Diagnosis is based on careful history taking and physical examination, as there is no laboratory tests to confirm the diagnosis. All efforts should be made to rule out the dangerous condition of ainhum, clinically and radiologically. The differential diagnosis for pseudoainhum constitutes all other causes which can present with constricting bands around the digits. These include some non-hereditary conditions like diabetes, raynaud's disease, scleroderma, syringomyelia, spinal cord tumours and infections such as leprosy. Clinicians should go for a detailed workup to rule out congenital and developmental abnormalities like keratoderma syndromes e.g. *Mal de Meleda*, Pachyonychia congenita and Vohwinkel syndrome. Family members should also be carefully examined for co-morbid syndromes and for pseudoainhum itself. Other organ systems may be affected and thus should not be overlooked. A comprehensive and careful review of systemic examination is required. Extrinsic factors such as trauma, frostbite, and ergot poisoning must also be considered in differential diagnosis.

Pseudoainhum has been managed historically with liver oil, nicotinic acid, topical steroids and oral retinoids with satisfactory response. The invasive approach like surgery is directed at the constriction. This approach includes release of the constricting band and Z-plasty, skin grafting with digital flaps and in more advanced stages, amputation. McLaurin described the acute development of psoriasis and pseudoainhum of the fingers over a period of one week, presenting with constricting band around the middle phalynx of a single digit of left hand. The onset of pseudoainhum and acute psoriasis was preceded by irritant contact dermatitis of hands after immersing in ammonia cleaning solution. This is in contrast to our patient, where there was no previous history of contact dermatitis or chemical trauma. McLaurin managed his case with surgical incision of the constricting bands. While in our case, we believe that topical steroid applications relieved the hyperkeratotic bands within 2 weeks, as oral retinoid usually take few weeks to give a remarkable impact on outcome. Thus, highlighting the importance of conservative approach where distal neurovascular status and underlying bone health is not jeopardized. A case of pseudoainhum with chronic psoriasis has also been documented by Almond, where he managed the condition with conservative approach using topical steroids and emollients, similar to our report. This report substantiates the clinical association of pseudoainhum and acute psoriasis. Prompt recognition of this potentially dangerous condition and appropriate conservative management can stop the progression of condition to the feared complication of autoamputation. Although a rare condition, the treatable nature of this disorder makes it imperative that must be recognized in order to avoid unnecessary amputations.

**REFERENCES**

6. Poulin Y, Perry HO, Muller SA. Olmsted syndrome congenital


