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Case Report Open Access

Arthritis Mutilans: A Case Report

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Abstract

A fifty year old farmer presented with severe joint pain and swelling in the small joints of hands and feet and a rapidly progressive downhill course over a period of three months. The patient developed joint deformities of hands and feet with digital resorption of the terminal phalanges. Five months after the start of joint deformities, the patient developed well defined erythematosquamous plaques with silvery white scales on the extensor aspect of limbs and scalp. The nails had pitting, discoloration and sub ungual hyperkeratosis. The clinical and histopathological diagnosis was consistent with Psoriasis. A radiograph of hands and feet revealed splaying of the base of the phalanges with tapering of the ends of metacarpals and metatarsals showing 'pencil-in-a cup' deformity. Distal inter phalangeal joints were also involved. A diagnosis of Psoriasis with Arthritis Mutilans was made. The patient was put on injectable Methotrexate and oral steroids.

Keywords: Psoriasis; Arthritis; Mutilans

Introduction

Psoriatic arthritis can develop in 4-9% of patients with psoriasis of the skin [1]. According to the Moll&Wright ,s classification, five subtypes can be recognized, the most common being, the predominantly peripheral mono- or asymmetrical oligoarthritis and the most classical being the distal interphalangeal joint arthritis [2]. In 5% of patients a severely deforming arthritis known as arthritis mutilans can develop. This variant involves the fingers and toes predominantly. Gross osteolysis with digital fore-shortening and ankylosis can result. The radiological finding reveals sharpened pencil like appearance due to tapering of the heads of metatarsals and metacarpals [3]. Such gross osteolysis may be followed by bony fusion.

Case Report

A fifty year old farmer, non diabetic, non-hypertensive with no preceding history suggestive of psoriasis of the skin or of Rheumatoid arthritis, started with severe joint pain in the small joints of hands and feet. The pain was associated with swelling of the joints. The disease had a rapidly progressive downhill course over a period of three months. The patient consulted an orthopaedician who made a provisional diagnosis of sero-negative Rheumatoid arthritis. The treatment at that time included injects able corticosteroids & non-steroidal anti-inflammatory drugs. The patient developed joint deformities of hands and feet with digital resorption of the terminal phalanges (Figure 1). Costochondritis was also seen. There were no periarticular nodes. Systemic examinations revealed no abnormality. Five months after the start of joint deformities, the patient developed well defined erythematosquamous plaques with silvery white scales on the extensor aspect of limbs and scalp. Auspitz sign was positive. The nails had pitting, discoloration and sub ungual hyperkeratosis. On the palms and soles, pustules were seen on background erythema skin biopsy was taken which was consistent with psoriasis. Biochemical investigations were non contributory.

Radiographs of the hands and feet revealed splaying of the base of the phalanges with tapering of the ends of metacarpals and metatarsals showing 'pencil-in-a cup' deformity (Figures 2 and 3). Distal interphalangeal joints were also involved. X-ray lumbosacral spine revealed no abnormality and nor was the patient symptomatic for same.

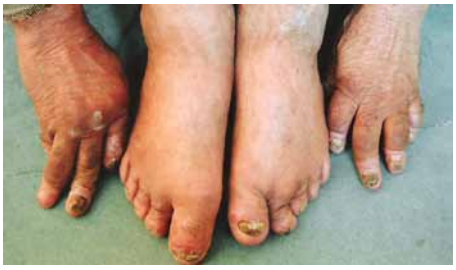

Figure 1: Deformity and resorption of the toes.

Figure 2: Radiograph of hands showing pencil in cup deformity.

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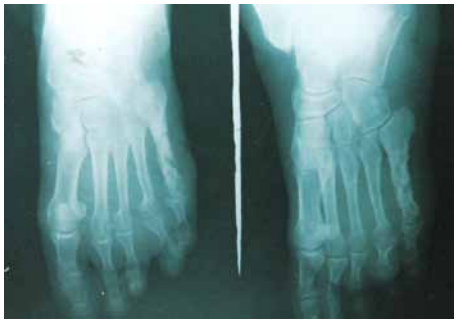

Figure 3: Radiograph of feet showing pencil in cup deformity.

In view of the classical cutaneous and joint involvement, a diagnosis of Psoriasis with arthritis mutilans was made. The patient was put on injectable Methotrexate and oral steroids (low dose). He continues to be on regular follow up.

Discussion

Psoriatic arthritis can develop in four to nine percent (4-9%) of patients with Psoriasis of the skin. The skin lesions precede arthritis in sixty five percent (65%), arthritis antedates skin involvement in nineteen percent (19%) and in sixteen percent (16%) skin and joint involvement occurs simultaneously. The peak age of onset of arthritis is forty to sixty years [1].

The Moll and Wright classification 2 includes five clinical groups: predominantly peripheral mono or asymmetrical oligo arthritis, distal interphalangeal arthritis, symmetrical rheumatoid like rheumatoid factor negative polyarthritis, axial arthritis and arthritis mutilans. Arthritis mutilans is a severely deforming arthritis involving fingers and toes predominantly. Gross osteolysis may cause digital fore-shortening and ankylosis. Nail changes occur in two third of patients of psoriatic arthritis and include sub ungual hyper keratosis, oil drop sign and onycholysis [3]. The most important serological feature is a negative test for Rheumatoid factor. The 'opera glass hand' in which fingers can be pulled in and out results from gross destruction and absorption of bones. The heads of metacarpals and metatarsals may completely disappear leaving a tapered bone looking like a sharpened pencil [4]. Treatment includes non steroidal anti inflammatory drugs.

However the controversy as to whether these drugs aggravate the skin lesions of Psoriasis remains. Once weekly dose methotrexate (10-25 mg) has been found to be effective [5]. In fulminating arthritis, irreversible crippling deformities can be arrested only by systemic steroids at a dose of less than 7.5 mg prednisolone daily.

In our patient, a rare clinical presentation in the form of arthritis followed subsequently by cutaneous manifestation was seen. The arthritis was rapidly destructive and resulted in deformity of hands and feet a Nail change adjacent to the joints was seen. The X-ray changes revealed a typical pencil-in-a-cup deformity. The patient showed a satisfactory response to Methotrexate and continues to be on regular follow up.

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