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CASE REPORT

An Unusual Case of Psoriatic Arthritis

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Abstract

The association of arthritis with Psoriasis is well established; with variable prevalence in different population groups. The timing of onset of arthritis with respect to skin lesion is variable; with the most common pattern being arthritis manifesting concurrently or after the appearance of cutaneous lesion. We document a case of a young male in whom the skin lesions were preceded by arthritis by almost a year. The pattern of arthritis was a combination of symmetrical polyarthritis involving small and large joints of body as well as axial spondyloarthritis. The final diagnosis could only be made after the appearance of skin lesion as the patient had no past history or family history of Psoriasis. Finally there was a striking response to Methotrexate both in terms of skin lesion as well as joint symptoms.

Psoriasis arthritis (PsA) is a complex autoimmune inflammatory arthritis with varied presentation. Originally PsA was thought not to be a separate entity, but as a manifestation of Rheumatoid Arthritis (RA) occurring coincidentally with Psoriasis.[1,2] The pioneering work of Wright and Moll led to classification of PsA into polyarticular, asymmetric oligoarticular, distal interphalangeal joint involvement only, spondylitis, and arthritis mutilans.[3] There remains, however, an overlap between various forms of psoriatic arthritis. In addition, psoriatic arthritis may precede skin manifestations by several weeks or months, and in few cases, skin changes may never be present during the course of disease which is also known as Psoriatic arthritis sine Psoriasis.[4] The diagnosis then relies on a family history of psoriasis, genetic markers like HLA B16, B17, B27, B39 and Cw6 and presence of dactylitis/enthesitis and/or distal interphalangeal joint (DIP) involvement[4,5] Despite our growing insight into the disease pathogenesis, there is some delay in the diagnosis of PsA which is multifactorial and may include an absence of family history, absence of a properly validated case definition of PsA and inability to clearly separate seronegative RA from PsA.[6] We present a case wherein a young male patient developed skin lesions consistent with psoriasis, almost a year later after having had a pattern of inflammatory arthritis that could not fit into any single category as described by Wright and Moll. Patient had an excellent response to Methotrexate and Sulfasalazine, both in terms of skin lesions as well as joint symptoms.

CASE PRESENTATION

A 22 year old young man presented with one year history of pain in multiple joints. The pain started in bilateral knee associated with mild swelling. The onset of pain was insidious and it gradually progressed in next 2-3 months to involve bilateral ankles, elbows, shoulder joint followed by small joints of hand [all metacarpophalangeal (MCP)joints, proximal and distal interphalangeal (PIP and DIP) joints] and feet. The patient also complained of persistent inflammatory low back pain associated with morning stiffness for around 2 hours. From last 1 month he developed erythematous and pustular lesions all over body sparing face, palms, soles and

neck. He also complained of mild to moderate continuous fever, not associated with chills and rigors from last 10 days. He denied any previous joint symptoms or skin lesions and any family history of similar illness. There was history of on and off intake of non-steroidal anti inflammatory drugs (NSAIDS) for joint pain along with some ayurvedic medication, the nature of which was not known. He was non-smoker and not addicted to alcohol and any other substance. On examination, patient was thin built, with stable vitals. Hair colour was normal with multiple scaly lesions on scalp. Also he had erythematous pustular and scaly lesions all over the body (Fig.1a) with sparing of palms, soles and neck region. Rest of the General Examination was normal. Tenderness was present over bilateral knees associated with mild swelling, bilateral ankle, wrist, small joints of hand including MCP, PIP, and DIP joints. Nails of bilateral foot had yellowish discoloration, horizontal ridges and onycholysis of left second toe. There was presence of dactylitis in right index finger and flexion deformity of PIP Joint of right little finger. Bilateral knee joints were swollen and tender. The range of movements at spine was restricted, in both sagittal & coronal planes.

On investigation, Routine blood tests including a complete blood count, Renal and Liver function tests were within normal limits. ESR and CRP were raised. Rheumatoid Factor was negative. X-ray of the hand revealed subchondral erosion of right 2nd PIP joint along with fixed flexion deformity of right 5th PIP (Fig. 2). There was also unilateral Grade II sacroilitis on plain radiograph of S.I joint (Fig. 2)

A diagnosis of Psoriatic arthritis was made according to CASPAR criteria, and treatment was instituted to the patient by Inj. Methotrexate 25 mg subcutaneously weekly with folic acid 5 mg 1 tab next day, tab. Sulfasalazine 500mg BD for 15 days then 1 gm BD, tab. indomethacin sustained release 75 mg BD and regular physiotherapy

Patient showed an excellent response to above mentioned medications after one month of treatment. (Fig. 1b)

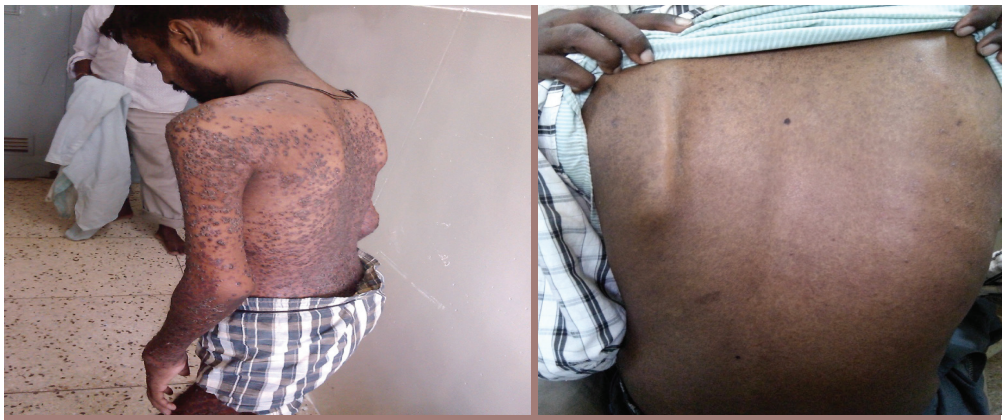

Fig. 1a and **1b:** Skin lesions before and after treatment

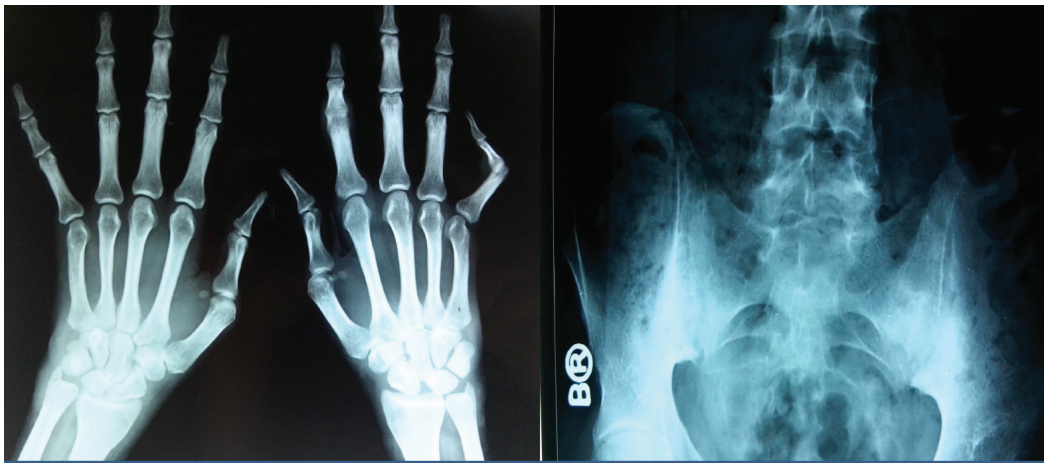

Fig. 2: X-ray of bilateral Hands AP view and X-ray of pelvis AP view

DISCUSSION

Psoriatic arthritis is now firmly considered to be a distinct entity. It is a chronic, progressive, autoimmune disease with IL12/IL23, and proinflammatory cytokines as the central molecules involved in the pathogenesis.[7] Not until the mid of 20th century, the arthritis associated with psoriasis was considered a manifestation of Rheumatoid arthritis[8,9]. The discovery of Rheumatoid factor certainly helped establish a separate status for PsA.

The overall prevalence of PsA is estimated to be 7-40% in different population studies of Psoriasis[10-12]. In up to 20% of patients of PsA, joint symptoms precede Skin manifestations.[13] Patients in whom arthritis occurs earlier in the course of disease or concurrently with skin lesions tend to be younger, have a positive family history, and are males. [14] Also there seems to be an association between physical trauma and acute stress with the onset of PsA.[15,16]

Psoriasis features that may serve as predictors of developing PsA include scalp lesions, nail changes and intergluteal skin lesion.[14] Although the pathophysiology of cutaneous and arthritic forms of Psoriasis is same, skin lesions and joint symptoms frequently do not correspond in severity. This suggest there could be alternative inflammatory pathways in the both.[4]

Our patient didn't had skin manifestations for almost a year; thereby the treating physician could not recognize the disease, thus delaying the diagnosis and correct treatment. The recently developed CASPAR criteria has a good sensitivity and specificity (>90%) and helps in early diagnosis of PsA.[14]

The prevalence of PsA is highly undermined as enthesitis associated with PsA could be the only presentation without other symptoms or signs. Such patients where an undifferentiated form of arthritis develop needs to be followed up and monitored at regular interval to look for evolution in a specific pattern in specific pattern. Careful physical examination including nails and hairs should be done to see for evidence of psoriasis in these patients. And finally, treatment must be instituted early to prevent irreversible joint damage.

REFERENCES

1. Wright V. Psoriasis and arthritis. *Ann Rheum Dis* 1956; 15:348–56
2. Wright V. Psoriasis and arthritis: a comparative study of rheumatoid arthritis, psoriasis and arthritis associated with psoriasis. *Arch Derm* 1959; 80:27–35
3. Moll JMH, Wright V. Psoriatic arthritis. *Semin Arthritis Rheum* 1973; 3:55–78
4. Olivieri I, Padula A, D' Angelo S, Cutro MS. Psoriatic arthritis sine psoriasis., *J Rheumatol Suppl.* 2009 Aug;83:28-9.
5. Gladman DD, Anhorn KA, Schachter RK, Mervart H, HLA antigens in Psoriatic arthritis; *The Journal of Rheumatology* [1986, 13(3): 586-592]
6. Palazzi C, Olivieri I, Petricca A, *et al.* Rheumatoid arthritis or psoriatic symmetric polyarthritis? A difficult differential diagnosis. *Clin Exp Rheumatol* 2002; 20:3–4.
7. O' Neill T, Silman AJ. Psoriatic arthritis: historical background and epidemiology. *Baillieres Clin Rheumatol* 1994; 8: 245–61.
8. Hueber AJ, McInnes IB; Immune regulation in psoriasis and psoriatic arthritis-Recent developments. *Immunol Lett.* 2007 Dec 15; 114(2):59-65.
9. Gladman DD. Natural history of psoriatic arthritis. *Baillieres Clin Rheumatol* 1994; **8**: 379–94.
10. Gisondi P, Girolomoni G, Sampogna F, Tabolli S, Abeni D. Prevalence of psoriatic arthritis and joint complaints in a large population of Italian patients hospitalised for psoriasis. *Eur J Dermatol* 2005; **15**: 279–83.
11. Wilson FC, Icen M, Crowson CS, McEvoy MT, Gabriel SE, Kremers HM;Incidence and clinical predictors of psoriatic arthritis in patients with psoriasis: A population-based study; *Arthritis Rheum.* 2009 Feb 15; 61(2): 233-239
12. Pattison EJ, Harrison BJ, Griffiths CE, Silman AJ, Bruce IN. Environmental risk factors for the development of psoriatic arthritis: results from a case control study. *Ann Rheum Dis* 2008; 67: 672–6.
13. Reich K, Kruger K, Mossner R, Augustin M. Epidemiology and clinical pattern of psoriatic arthritis in Germany: a prospective interdisciplinary epidemiological study of 1,511 patients with plaque-type psoriasis. *Br J Dermatol* 2009; 160: 1040–7.
14. Taylor W, Gladman D, Helliwell P, Marchesoni A, Mease P, Mielants H, and the CASPAR Study Group. Classification criteria for psoriatic arthritis: development of new criteria from a large international study. *Arthritis Rheum* 2006; 54: 2665–73.
15. Scarpa R, Del Puente A, di Girolamo C, della Valle G, Lubrano E, Oriente P. Interplay between environmental factors, articular involvement, and HLA-B27 in patients with psoriatic arthritis. *Ann Rheum Dis* 1992; 51: 78–9.
16. Ciocon DH, Kimball AB; Psoriasis and psoriatic arthritis: separate or one and the same; *British journal of Dermatology* 2007 Nov:157(5):850-60