

## MANUBRIOSTERNAL JOINT INVOLVEMENT IN PSORIATIC ARTHRITIS

### ZAJĘCIE SPOJENIA RĘKOJEŚCI MOSTKA W ŁUSZCZYCOWYM ZAPALENIU STAWÓW

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#### Abstract

Psoriatic arthritis (PsA) is a type of seronegative arthritis associated with psoriasis of skin and nails. It affects axial and eripheral joints with variable severity. The course and prognosis of the disease suggest that early diagnosis and aggressive treatment are important. The most common clinical type of PsA is oligoarthritis in which four or fewer joints are involved often in an asymmetrical pattern, and arthritis mutilans which is the destructive form and is the least common. We report a case of PsA in which the manubriosternal joint alone was involved as initial manifestation in association with psoriatic erythroderma. .

#### Streszczenie

Łuszczycowe zapalenie stawów (ŁZS) jest typem seronegatywnego zapalenia stawów związanym z łuszczycą skóry i paznokci. Wpływa na osiowe i obwodowe stawy w zmiennym natężeniu. Przebieg i rokowanie choroby sugerują, że wczesne rozpoznanie i agresywne leczenie są istotne. Najczęstszą kliniczną postacią ŁZS jest oligoarthritis, w którym to cztery lub mniej stawów, często asymetrycznie objęte są procesem chorobowym oraz arthritis mutilans, które jest destrukcyjną formą ŁZS i jest najmniej powszechne. Przedstawiamy przypadek ŁZS, w którym zajęte było spojenie rękoności mostka co stanowiło wstępną manifestację zmian związaną z ertrodermią łuszczycową.

**Key words:** Psoriasis, Psoriatic arthritis, manubriosternal joint

**Słowa kluczze:** łuszczycza, łuszczycowe zapalenie stawów, spojenie rękoności mostka

#### Introduction

Psoriatic arthritis (PsA) is a specific form of inflammatory arthritis associated with psoriasis of skin and nails and is usually seronegative for rheumatoid factor. Clinically, five different patterns of the diseases have been described: distal interphalangeal arthritis ,oligoarthritis,polyarthritis,arthritis mutilans and spondyloarthropathy [1]. These clinical patterns can change with time and may develop into more destructive forms of the disease.It is therefore suggested that early diagnosis may prevent these adverse outcomes of PsA [2,3]. We hereby report a case of PsA in the form of monoarticular involvement of manubriosternal joint associated with psoriatic erythroderma.

#### Case Report

A 50 year old male patient who was a known case of psoriasis presented with a two weeks history of acute exacerbation of the disease. Patient was a diagnosed case of psoriasis vulgaris for twenty years and

his disease used to get controlled by topical medications but two weeks back the disease got flared up after intake of some ayurvedic drugs. It was associated with fever and malaise. There was no history suggestive of joint pains or any other systemic disease, however, the patient complained of persistent pain over the anterior chest which started three days after the aggravation of disease. On examination, the patient was in erythroderma (Fig. 1) and typical psoriatic plaques were present on scalp and dorsum of hands and feets. Nail examination showed pitting and onycholysis in some of the finger nails. Tenderness and swelling was noted over manubriosternal joint (Fig. 2) and arthritis of the joint was suspected. Rest of the joint examination was insignificant. General physical and systemic examination was normal. Routine investigations like complete blood counts, urine examination, liver function tests and kidney function tests were normal. Serum uric acid was normal (5.6mg/dl). The synovial fluid aspirated from the inflamed joint was negative for crystal deposits.

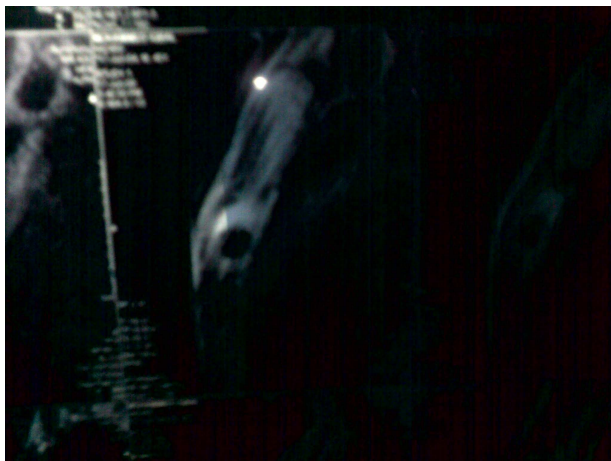


**Figure 1. Showing psoriatic erythroderma**



**Figure 2. Showing involvement of manubriosternal joint**

Rheumatoid factor and ANA were normal. Chest x-ray and ECG were normal. An MRI scan of the sternum revealed narrowing of the joint space and articular erosions confirming arthritis of the manubriosternal joint (Fig. 3). In view of the constellation of clinical, laboratory and radiological findings, a diagnosis of PsA of manubriosternal joint was made. The patient was given weekly methotrexate (25mg/wk) and the skin lesions and arthritis showed good response after two weeks and almost resolved completely after 8 weeks of treatment.



**Figure 3. Radiological involvement of the manubriosternal joint on MRI**

## Discussion

Psoriatic arthritis (PsA) is classified as seronegative spondyloarthropathy associated with HLA-B27. The prevalence of psoriatic arthritis in general population is reported to be 0.5 percent whereas in psoriatic population it affects about 5-30 percent patients. The diseases can start at any age but the usual age of onset is between 35 and 45 years about 10 years later than psoriasis [4]. However, in 15 percent cases it can precede the diagnosis of psoriasis. The Moll and Wright classification includes five clinical groups: asymmetrical oligoarthritis, symmetrical rheumatoid like pattern, predominantly distal interphalangeal type, predominantly axial arthritis which includes spondylitis and sacroiliitis and arthritis mutilans which is a destructive form of PsA. Psoriasis of the nails occur in about 75 percent PsA patients as compared to 30 percent with skin lesions alone [5]. Besides the affection of axial and peripheral joints, the involvement of temporomandibular joint is not uncommon in PsA [6]. The involvement of sternal joints as initial manifestation is unusual in PsA. The association of manubriosternal joint arthritis with palmoplantar pustulosis and psoriasis vulgaris has been reported [7]. Nancy et al reported a case of manubriosternal joint arthritis in a patient of generalized pustular psoriasis without involvement of any other axial or peripheral joint [6]. In our case, the patient had psoriasis for two decades but there was no evidence of any joint involvement. The monoarticular involvement of manubriosternal joint in association with psoriatic erythroderma has not been reported earlier and to the best of our knowledge this is the first report of this association. The various treatment options in PsA are NSAIDs, intraarticular corticosteroids, systemic retinoids, immunosuppressants such as cyclosporine, azathioprine, and methotrexate, leflunomide. PUVA photochemotherapy and sulfasalazine are used successfully. Recently, TNF-alfa antagonists such as infliximab, etanercept and adalimumab are being increasingly used and are reserved for more severe cases. We treated our patient with weekly methotrexate only.

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