

Arthritis Mutilans in a Patient with Psoriasis

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Abstract: Psoriatic arthritis is a seronegative spondyloarthropathy occurring in 7 -10% of patients with psoriasis. Arthritis mutilans is a rare and severe form occurring in 3 to 5 % of psoriatic arthritis. It is an aggressive, progressive and destructive form of arthritis involving small joints of hand and foot ,ending in severe joint deformity thereby causing disability. Here we report a case of 72 year male patient with psoriatic skin lesions of 10 years duration not on treatment, now presented with classical "opera glass hands"⁽³⁾ - telescoping finger deformity, the hall mark of arthritis mutilans. Patient also has systemic hypertension.

Keywords: Psoriasis; Psoriatic Arthritis; Arthritis Mutilans

1. Introduction

Psoriatic arthritis is a chronic inflammatory arthritis with the incidence of 7-10% in psoriatic patients. Usually psoriatic skin lesions precede arthritis. In 15 -20% arthritis can occur prior to skin disease. Nail changes are seen in 90% psoriatic arthritis⁽¹⁾. Arthritis mutilans is a severe form of progressive and destructive arthritis involving usually small joints of hand and foot. It can occur in psoriasis as well as in rheumatoid arthritis. In psoriatic arthritis mutilans, rheumatoid factor will be negative.

2. Case report

A 72 years male, nondiabetic, hypertensive of 1 year duration and skin lesions of 10 years duration now presented with the complaints of painful swelling and shortening of the digits in both hands. On general examination his BP was 200/110mmhg and he was having extensive skin lesions in the form of erythematous squamous plaque with silvery white scales over bilateral extensor aspect of the forearm and hand, bilateral gluteal region, bilateral lateral aspect of thigh ,umbilicus and scalp.

On examination of hand:



- Painful swelling of all proximal interphalangeal joints,
- shortening of ring and little finger of both hands,
- Pitting of nail in all fingers,
- Multiple transverse skin folds over the digits,

- Sausage digits (swelling of the entire digit) in middle finger of both hands,
- Flexion deformity of the hand - telescoping appearance," opera glass hands"-The hallmark sign of arthritis mutilans in the hand.

Other systems were clinically normal.

The following investigations were done

Investigation	Result
Urine Routine	Normal
TC	8700cells/cubmm3
ESR	4/10mm
Urea	39
Creatinine	1.1
LFT	Normal
URIC ACID	4.8mg/dl
Rheumatoid factor	Negative
CRP	Negative
ANTI-CCP	Negative
Serum Electrolytes	Normal
Lipid Profile	Normal
Chest X Ray PA	Normal study
ECG	LVH WITH STRAIN pattern.
Echo	Concentric LVH, grade 1 diastolic dysfunction, EF-55%.
X Ray Hand	Bilateral subchondral sclerosis, joint space narrowing, articular surface irregularity.
MRI LS Spine	Lumbar degenerative disc disease, bilateral sacro ilitis.

Diagnosis was made as psoriatic arthritis mutilans with hypertension. Patient was started on T.Methotrexate 7.5 mg weekly once and T.Losartan 50mg BD. His BP was controlled. He was discharged and referred to Rheumatologist for expert management.

3. Discussion

This patient had erythematous squamous plaques with silvery white scales over bilateral extensor aspect of the forearm and hand, bilateral gluteal region, bilateral lateral

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aspect of thigh, umbilicus and scalp. This is consistent with the diagnosis of psoriasis because of the nature and site of the lesion. The incidence of psoriatic arthritis is 7-10% among psoriatic patients. There are five clinical subsets of psoriatic arthritis⁽¹⁾ namely asymmetric oligoarthritis, spondylitic polyarthritis (incidence 40%), predominant DIP (15%), spondylitis and sacroiliitis (20-40%), arthritis mutilans (3-5%). There is a link between HLA B27 carrier state and spondylitic form of psoriatic arthritis.

In arthritis mutilans there is severe inflammation and marked destruction of cartilage and bone damaging the joints of hand and feet resulting in deformities. It can also affect spine. Osteolysis of phalanges with soft tissue collapse results in shortening of the digits and the excess skin causes transverse folds. The appearance of short fingers with transverse skin folds is called as "opera glass hand" or telescoping finger, which is considered as phenotype of arthritis⁽³⁾ mutilans. In addition to this, dactylitis and sausage digits (swelling of the entire digit) is also a classical picture of arthritis mutilans⁽³⁾. In our patient there was opera glass hand deformity and also sausage digit. Pencil in cup deformity is a classical radiological sign in psoriatic arthritis⁽¹⁾ which is due to bone proliferation at base of distal phalanx with tapering of proximal phalanx. Incidence of sacroiliitis is 10-25% in moderate to severe psoriasis⁽⁴⁾. In our patient there was bilateral sacroiliitis. Nail changes are common in 90% cases of psoriatic arthritis⁽¹⁾ which was present in our case in the form of pitting nail.

Arthritis mutilans can occur in psoriasis and also in RA. Dactylitis, spondylitis, sacroiliitis are common in psoriatic arthritis rather than RA⁽³⁾. In our patient absence of rheumatoid factor and presence of dactylitis, sacroiliitis and pitting nails confirm the diagnosis of psoriatic arthritis mutilans.

Our patient is having systemic hypertension and ECG revealed LVH with strain pattern and echo shows concentric LVH and diastolic dysfunction. Psoriatic arthritis itself is a potential risk factor for cardiovascular disease and so patient should be screened for subclinical cardiovascular involvement⁽²⁾. High prevalence of macrovascular disease, endothelial dysfunction, arterial stiffness and left ventricular diastolic dysfunction in psoriatic arthritis patient without any clinically evident signs of atherosclerosis or its complications.⁽²⁾

4. Conclusion

This case, **Psoriatic arthritis mutilans** is reported because of its rarity. As it is a progressive and destructive arthritis resulting in deformity and persistent disability, we emphasise the early diagnosis, proper treatment and regular follow up is needed in all psoriatic patients for prevention or early detection of arthritis mutilans. They should also be screened for cardiovascular disease because of its high prevalence in psoriatic arthritis.

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