RADIOLOGICAL CHANGES IN PSORIATIC ARTHROPATHY

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Forty-one cases of psoriatic arthropathy (PA) were selected for the study. Biopsy, x rays of hands, feet, cervical and dorsolumbar spine, sacro-iliac joints and routine investigations were carried out. Clinical diagnosis of psoriasis was confirmed histopathologically. Radiological changes in order of frequency were most common in feet - 26/41, hands - 24/41, sacro-iliac joints - 11/41, dorso-lumbar spine - 4/41 and cervical spine - 3/41. Distinctive radiological changes were seen in psoriatic arthritis.

Key words : Oligoarthritis, Syndesmophytes, Erosion.

Psoriatic arthropathy (PA) is defined as an inflammatory disease of joints in patients of psoriasis with negative rheumatoid serology.[1] Bauer in 1941 observed that incidence of psoriasis in patients with seronegative polyarthritis was unduly high.[2] Moll and Wright classified PA into 5 broad categories. [3]

1. Asymmetrical oligoarthritis of fingers or toes (70%). Associated tenosynovitis produces a classical "sausage" digit.
2. Symmetrical polyarthritis simulating rheumatoid arthritis except for absence of RA factor in the blood (15%).
3. Classical distal interphalangeal PA (5%).
4. Arthritis mutilans (AM)-a severely deforming arthritis with osteolysis, destruction of bones and widespread ankylosis (5%).
5. Ankylosing spondylitis with or without peripheral arthropathy (5%).

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Material and Methods

Forty-one patients of PA with negative serology were taken for the study. Detailed history and systemic and dermatological examination were done in all cases. Clinical diagnosis of psoriasis was confirmed by histopathological study. Laboratory investigation included haemoglobin, ESR, serum uric acid, serum globulins and rheumatoid factor. Radiological examination of hands and feet (AP view), cervical and dorsolumbar spine (AP and lateral view) and sacroiliac joints (AP view) were done in all cases.

Results

Forty-one cases of PA were studied. Swelling associated with pain of joints was seen in 16 cases i.e. 39%. Radiological changes in order of frequency were most common in feet (63.4%), hands (58.3%), sacro-iliac

joints (2/%), dorsolumbar spine (9.8%) and cervical spine (7.3%). Changes in hands and feet were tuft resorption in 51.2%, erosion in 46.4%, loss of articular cartilage in 7.2%,

Table I : Distribution of radiological findings in hands and feet

Radiological features	Number	Percentage
Tuft resorption	21	51.2
Erosion	19	46.4
Loss of articular cartilage	3	7.2
Widening and new bone formation	25	61.1
Mild flexion deformity	16	39.1
Ankylosis	2	2.8

Table II : Distribution of radiological changes in spine and sacro-iliac joints

Radiological features	Number	Percentage
Syndesmophytes	5	12.0
Squaring of vertebrae	3	7.2
Articular erosions	8	19.5
Juxtaarticular sclerosis	6	14.6
Ankylosis	2	4.8

widening and new bone formation in 61.1%, mild flexion deformity in 39.1% and ankylosis in 4.8% (Table.I). Patients with arthritis mutilans revealed osteolysis, 'pencil in cup' appearance at metacarpo and metatarsophalangeal joints and bony ankylosis with deformity of digits. Radiological changes observed in spine and sacro-iliac joints are given in Table II.

Discussion

Salient results of the above study were that 34 percent PA were asymptomatic clinically but revealed changes of PA radiologically. Bone changes were most frequent in joints of feet. Most common change was new bone formation at the base of terminal phalanx of great toe. Anterior syndesmophytes were common in cervical spine and paravertebral syndesmophytes in dorsolumbar spine. Articular erosions, juxtaarticular sclerosis and bony ankylosis were seen in sacro-iliac joints. So, detailed x-ray examination in psoriasis can detect early cases of PA and help in their proper management.

References

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