

# Eye inflammation in psoriatic arthritis

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**Lambert, J. R., and Wright, V. (1976).** *Annals of the Rheumatic Diseases*, 35, 354-356. **Eye inflammation in psoriatic arthritis.** In a study of 112 patients (49 men, 63 women) with psoriatic arthritis, ocular inflammation was noted in 35 (31.2%). Conjunctivitis was the most common lesion, being found in 19.6% (10 males, 12 females). Iritis occurred in 7.1% (5 men, 3 women), episcleritis in 1.8% (1 man, 1 woman), and keratoconjunctivitis sicca in 2.7% (3 women). 20 patients (10 men, 10 women) had radiological sacroiliitis and 11 of these (7 men, 4 women) had ankylosing spondylitis according to the New York criteria. Eye lesions were noted in 7 of the patients with sacroiliitis, 3 having iritis (15%) and 4 (20%) conjunctivitis. 2 patients with spondylitis had iritis (18%) and 1 (9%) conjunctivitis.

It is concluded that inflammatory eye lesions are a frequent accompaniment to psoriatic arthritis. This is taken as further evidence for the concept of the seronegative spondyloarthritides.

Inflammatory lesions of the eye occur in a number of rheumatic diseases. Scleritis and keratoconjunctivitis sicca are associated with seropositive rheumatoid arthritis (Downie and Buchanan, 1969), and uveitis and conjunctivitis are common in certain types of seronegative polyarthritis. Thus Whaley and others (1973) found that of 171 patients with Sjögren's syndrome, 94 had rheumatoid arthritis. Thompson and Eadie (1956) found keratoconjunctivitis sicca in 14.3% of patients with rheumatoid arthritis. Iridocyclitis was found in 3-5% (Duthie, 1969). Episcleritis is uncommon; Jayson and Jones (1971) found no cases in 142 patients with rheumatoid arthritis, although scleritis was present in 6.3%. Conjunctivitis occurred in 30% of patients with Reiter's disease (Csonka, 1958) and may be frankly purulent. 20% of patients with ankylosing spondylitis have iritis (Blumberg and Ragan, 1956) as do 25% with the arthritis of ulcerative colitis (Wright and Watkinson, 1965). 10% of patients with Reiter's disease have iritis (Csonka, 1958), the prevalence rising to 40% in those with chronic or recurring arthritis (Huskinson and Hart, 1975). Mason and Barnes (1969) reported uveitis in 56% and keratitis in 16% of patients with Behçet's disease. Chamberlain (1975) found iritis in 4 of 32 patients, 3 with visual impairment, and conjunctivitis in a further 4 patients. Ocular inflammation (conjunctivitis or uveitis) is cited (Moll and others, 1974) as one of the features of clinical overlap between the seronegative

arthritides, and thus as evidence for the concept of seronegative spondyloarthritides.

Uveitis has been shown to be associated with the histocompatibility antigen, HL-A 27 (Brewerton and others, 1973a), as has ankylosing spondylitis (Brewerton and others, 1973b) and other seronegative variants (Brewerton and others, 1974; Morris and others, 1974). There are no comprehensive studies of eye involvement in psoriatic arthritis, though Harkness (1950) and King and Mason (1969) stated that conjunctivitis and iritis do not occur.

## Method

112 patients (49 male, 63 female) with psoriatic arthritis, according to the criteria of Moll and Wright (1973), were reviewed in a hospital outpatient clinic, where there is a particular interest in this condition. In addition to routine clinical examination inquiry was made into previous eye involvement and confirmation from medical records was sought when these were available. Where possible blood was taken for HL-A typing and antinuclear factor determination. Anteroposterior x-rays of the pelvis were available in 84 patients, with special views of the sacroiliac joints in doubtful cases.

## Results

The prevalence of inflammatory lesions of the eye in psoriatic arthritis is shown in Table I. In no case was the process sufficiently severe to impair vision.

Conjunctivitis was the most common lesion, occurring with the same frequency in males and females. Duration of the arthritis was longer at 17.6 years compared with 12.5 years in the total group.

**Table I** Eye lesions in psoriatic arthritis (49 males, 63 females)

	Male <i>n</i>	Female <i>n</i>	Total <i>n</i>	%
Conjunctivitis	10	12	22	19.6
Iritis	5	3	8	7.1
Episcleritis	1	1	2	1.8
Keratoconjunctivitis sicca	0	3	3	2.7
All ocular inflammation	16	19	35	31.2

Of the 8 patients with iritis, 2 (1 male, 1 female) had ankylosing spondylitis according to the New York criteria (Bennett and Wood, 1968), and one further female had radiological sacroiliitis. (*x*-rays of the sacroiliac joints were unavailable for one man.) Thus in patients with iritis the prevalence of sacroiliitis was 43% and that of spondylitis 28.5%. These figures were greater than in those without iritis. *X*-rays were available for 77 of these patients and sacroiliitis was found in 17 (22%) and spondylitis in 9 (11.7%). The prevalence of iritis in patients with sacroiliitis was 15% and in those with spondylitis was 18%, compared with 6% in patients without sacroiliitis (Table II). HL-A typing was performed on 5 patients with iritis and HL-A 27 was present in 2 cases (40%). The remainder had a prevalence of 29% (15 in 52 cases). Tests for antinuclear factor were negative in the 7 patients with iritis for whom results were available, although they were positive in 9 without iritis. Patients with iritis did not differ significantly in the age of onset of their arthritis or in its duration from those without.

**Table II** Prevalence of iritis in psoriatic arthritis related to radiological sacroiliitis

	No.	No. with iritis	%
Psoriatic arthritis + sacroiliitis	20	3	15
Psoriatic arthritis + spondylitis	11	2	18
Psoriatic arthritis — no sacroiliitis	64	4	6

Keratoconjunctivitis sicca was found in only 3 female patients. While all were consistently seronegative for rheumatoid factor at the time of review, 2 had been seropositive (titres of 1:128 and 1:62) and the third borderline seronegative (1:8) at the onset of arthritis. None had rheumatoid nodules or vasculitis. The arthritis of the 2 previously seropositive patients was a symmetrical polyarthritis, while the third had an arthritis mutilans.

## Discussion

It is apparent that inflammatory lesions of the eye are a frequent accompaniment of psoriatic arthritis. This is further evidence of the link between psoriatic arthritis and other seronegative spondarthritides, which we are not aware of having been previously documented. The prevalence of eye inflammation in these diseases has been detailed earlier but two aspects merit discussion. The association between ankylosing spondylitis and psoriatic spondylitis is suggested by the similar prevalence of iritis. Psoriatic arthritis and Reiter's disease have been thought to merge into one another (Wright and Reed, 1964) and the frequency with which conjunctivitis and iritis were found in this study approached that in Reiter's disease.

Psoriatic arthritis frequently occurs as a polyarthritis indistinguishable from rheumatoid arthritis with regard to the distribution of joint involvement (Moll and Wright, 1973). While it is usually seronegative for rheumatoid factor, false positives occur causing problems of diagnosis. Of the 3 patients with keratoconjunctivitis sicca, two probably have rheumatoid arthritis and psoriasis, but we feel the third has psoriatic arthritis. One previous example of this association has been reported (Whaley and others, 1973).

The absence of positive tests for antinuclear antibodies is interesting. Schaller and others (1974) have shown that in Still's disease positive tests are related to chronic iridocyclitis, while negative tests are found in those patients with acute onset iridocyclitis who develop ankylosing spondylitis. In this series iritis followed a benign course and was related to spondylitis.

Nonspecific conjunctivitis was reported by Kaldeck (1953) in 11 of 90 patients seen with psoriasis. He felt this was a form of ocular psoriasis. Our view is that of Ingram (1954), who felt this was the fortuitous association of two common conditions. The prevalence of conjunctivitis reported here is two and a half times that in uncomplicated psoriasis.

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