

## **PSORIATIC ARTHRITIS**

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### **INTRODUCTION:**

Psoriatic arthritis is a disease with generally good prognosis. Both ocular and systemic involvement is usually benign, however, the following case is about a patient, who is disabled due to his severe joint and ocular symptoms. This report also shows that immunosuppressive therapy can be life-changing in these severe cases.

**CASE:** This is a case of a 40 years old white male who was referred on October 10, 2003 for a two and a half year history of chronic bilateral iritis. He was treated on and off with steroid and cycloplegic drops and prednisone and NSAIDs per os. His inflammation at times decreased, but never disappeared, in addition, he developed cataract secondary to the steroid treatment.

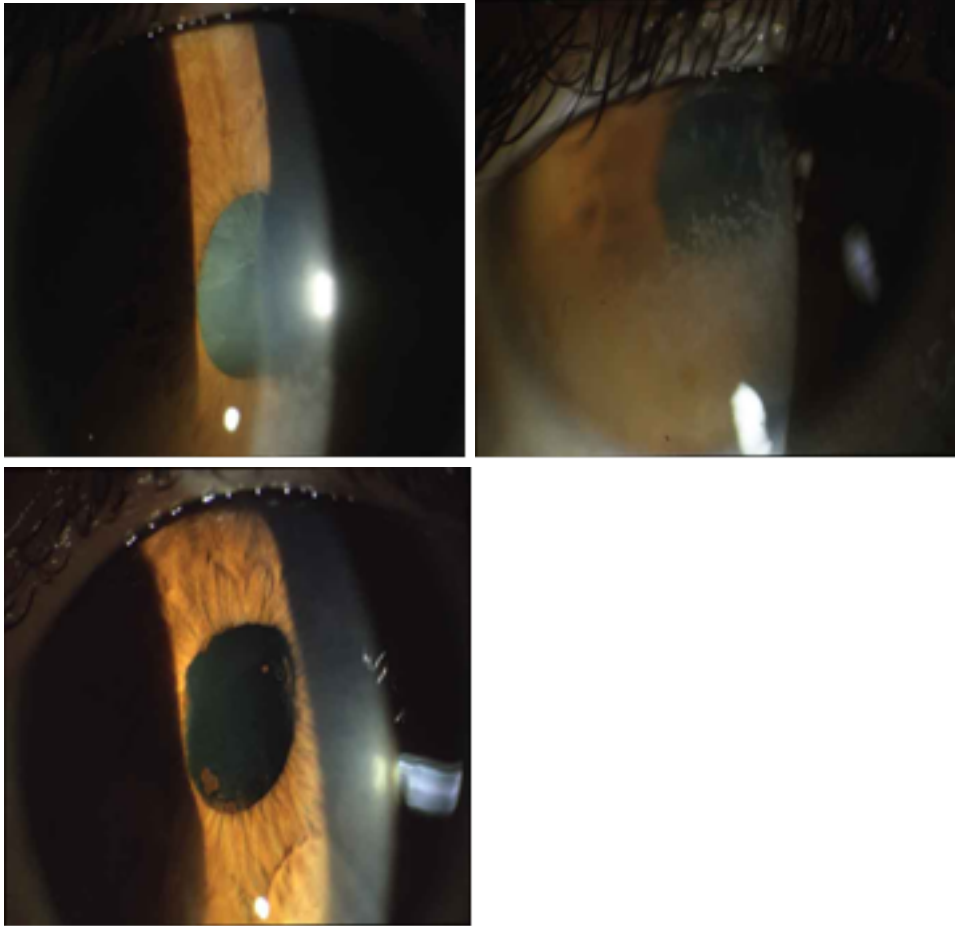
The patient's past medical history was significant for psoriatic arthritis, anemia, hepatitis B (probably because of blood transfusion) and inflammatory bowel disease (s/p colectomy six months ago due to "ruptured bowel").

He doesn't smoke or drink alcohol and he doesn't work because of profound arthritis and uveitis. The patient has been dependant on a wheel-chair for years prior to the referral to our clinic.

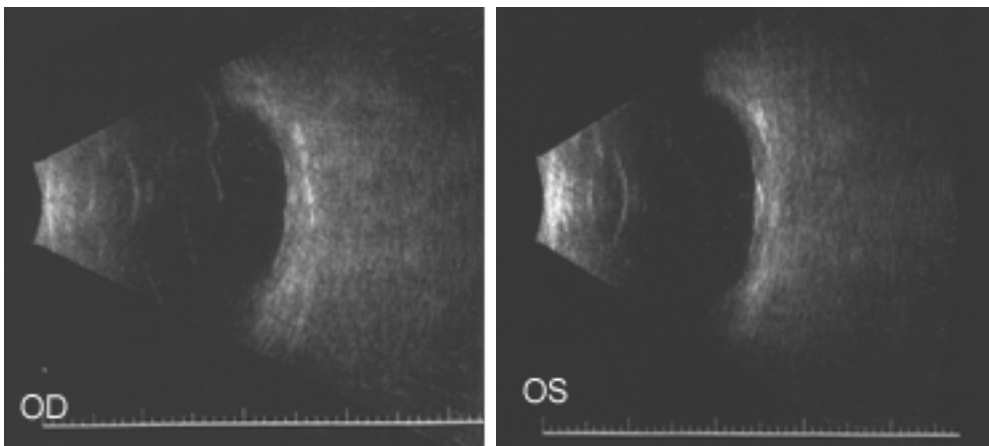
On physical exam the psoriatic changes were remarkable both in skin, nails, and joints.



The ocular examination disclosed visual acuities of CF OD and 20/200 OS, with pressures of 15 and 16mmHg right and left eye respectively. Slit lamp biomicroscopy revealed bilateral band keratopathy, deep anterior chambers with active inflammation bilaterally, 1+ OD and 2+ OS, extensive posterior synechiae and cataract OU, OD greater than OS.



The posterior synechiae and cataract made any decent examination of the retina impossible, therefore, B-scan ultrasonography was requested. The images recorded bilateral vitreous detachment with a lot of cellular material in the detached vitreous and probable substantial macular edema in both eyes:



Laboratory work-up revealed an ESR of 116mm per hour, elevated CRP at 13.4 mg/dl. The WBC was normal but the patient was anemic with an Hgb of 9 and Hct of 29.6. Kidney and liver tests were normal. IL-6 was found slightly elevated (2012). HLA B27 and RF were negative.

The physical examination and laboratory data suggest that this patient has uveitis associated with psoriatic arthritis.

His uveitis was refractory to systemic and topical steroids and NSAIDs that had already been prescribed. The patient needed an immunomodulatory program as soon as possible to prevent further permanent retinal damage being produced by the chronic uveitis. In making the decision on which IMT was appropriate in this case, there was a hesitation in methotrexate immunomodulation, given the patient's history of hepatitis B (despite the fact that his enzymes were normal). Mycophenolate mofetil (Cellcept) was selected in order to control the uveitis and etanercept (Enbrel) was added for his arthritis at the following doses:

Enbrel s.c. injection 50mg/week  
Cellcept 2g/day-2.5g/day

Two months after initiation of the immunosuppressive treatment, the eye inflammation was controlled and the eyes were quiet with no need for topical or systemic steroids. Additionally, a major improvement in motility was observed. Prior to the immunomodulatory therapy the patient was wheelchair bound, and two months later he was able to walk on his own.

Since active inflammation was controlled, the patient was scheduled for cataract extraction. Phacoemulsification, pars plana vitrectomy, posterior chamber intraocular lens implantation and intraocular Kenalog injection was performed in both eyes (first the right eye and one month later the left eye). The vision has improved to 20/150 OD and 20/200 OS.

### **Education Overview of Psoriatic Arthritis**

Psoriatic arthritis is defined as triad of psoriasis, chronic polyarthritis and negative test for rheumatoid factor.

#### **Epidemiology:**

Psoriasis affects 3% of the population worldwide. PA occurs in 5-7% of those patients. About 7-20% of patients with PA will develop uveitis. The experience in Dr. Foster's practice suggests that an association may exist, even in psoriasis patients without arthritis (psoriasis without arthritis but with uveitis).

Onset of PA is more frequent in the 3rd to 4th decade of life and there is a slight predominance of women.

#### **Etiology:**

Although the pathophysiology of the disease remains unknown, it seems that genetic, environmental and immunologic factors are involved:

A positive family history may be obtained in one third of the patients. There is an association of PA with HLA-A2, B17, B38, B39, Cw6, DR7a and of B27 with psoriatic spondylitis and sacroiliitis. A strong association exists between recent streptococcal infection, usually pharyngitis and guttate psoriasis. A trauma to a joint can also trigger a flare of PA in this joint.

#### **Clinical manifestations:**

*Skin lesions:* usually precede articular involvement. They may vary from small hidden patches in the axilla, under the breast, umbilicus (inverse psoriasis) to a generalized exfoliation involving elbows, legs, scalp, and trunk. The typical lesions are erythematous plaques with sharply defined margins, raised above the surrounding normal skin. A silvery scale is usually present. Guttate psoriasis refers to abrupt appearance of multiple small psoriatic lesions. Pustular psoriasis is the most severe form of psoriasis and can be life threatening.

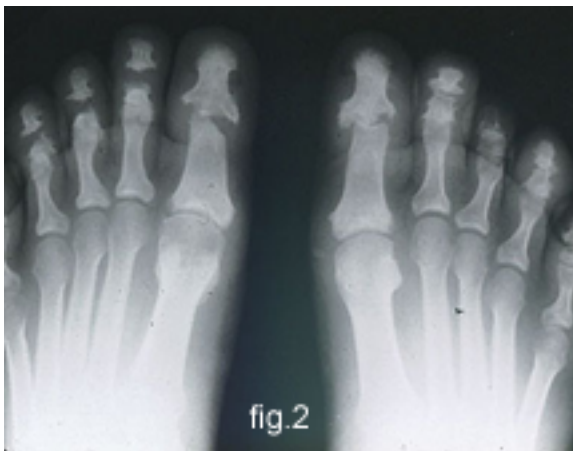


*Nail changes:* typical nail changes in psoriasis are pitting, ridging, onycholysis, nail discoloration and fragmentation.



*Arthritis:* several patterns of joint involvement in PA have been identified

- Distal arthritis, characterized by distal interphalangeal joint involvement (always associated with nail involvement) (fig.1)
- Asymmetric oligoarthritis
- Symmetric polyarthritis, similar to rheumatoid arthritis, but with negative test for RF
- Arthritis mutilans, characterized by deforming and destructive arthritis (fig.2)
- Axial arthritis (spondylitis and sacroiliitis) associated with HLA-B27



*Ocular involvement:* (7-20% of patients with PA)

Anterior uveitis -

Most frequent to patients B27 with sacroiliitis.

Acute, non-granulomatous, fine KPs, mild cellular reaction

Occ.: hypopyon, post-synechiae, mild vitritis, secondary CME

Less frequently conjunctivitis, episcleritis, scleritis and retinal vasculitis may also occur.

Fever, fatigue and low grade vasculitis may occasionally appear.

Diagnosis:

The diagnosis of PA is essentially clinical and is based on the presence of typical skin and nail lesions and seronegative arthritis.

There are no specific lab tests; occasionally elevated circulating immune complexes and (+) HLA-B27 are found.

Radiographically psoriatic arthritis is a blend of bone destruction and proliferation. Manifestations may include erosive arthritis, terminal phalanges osteolysis, sacroiliitis and spondylitis.

Differential diagnosis:

Ant. uveitis associated with PA should be differentiated from uveitis associated with other seronegative spondyloarthropathies, such as ankylosing spondylitis and reactive arthritis.

Differentiation is based on the specific clinical and X-ray findings.

Treatment:

*Uveitis:*

Acute uveitis: topical steroids, mydriatics

CME: Topical NSAIDs if not phakic, intraocular steroids, NSAIDs per os, steroids per os,

periocular inj. Triamcinolone, diamox.

Recurrent disease: NSAIDs p.o., immunomodulatory therapy

Systemic disease: NSAIDs, immunomodulatory therapy, photochemotherapy

Clinical course:

Most patients with psoriatic arthritis tend to have the disease for life. However, with the exception of arthritis mutilans and pustular psoriasis, systemic prognosis is generally benign.

Ocular prognosis is generally good. Most severe cases develop cataract, glaucoma, CME.