International Journal of Science and Research (IJSR)
ISSN: 2319-7064
SJIF (2022): 7.942

Recurrent Anterior Uveitis, Associated with Axial Spondyloarthritis - A Case Report

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Abstract: ***A 35 year-old female presented with pain and diminution of vision in right eye for 2 weeks and 6 months respectively. Pain was insidious in onset, associated with redness, photophobia and watering. Several past episodes were reported in both the eyes, with last attack affecting the right eye, 3 months back. Patient also gave history of gradually progressive low backache with stiffening and limited spine movements since the last 10 years. Ocular examination revealed mild haziness of cornea, iris pigments over the anterior lens capsule and corneal endothelium, flare (1+), aqueous cells (grading +2 to +3), a fixed, dilated and non-reacting pupil with raised IOP in the right eye. BCVA was found to be PL- (OD) and 6/24 (OS). Fundus examination revealed pale optic disc in the right side. On systemic examination, kyphosis with limited neck and spine movement was found along with spinal deformity. Blood tests showed raised ESR and CRP with HLA-B27 positivity. X-ray findings revealed multiple abnormalities like kyphosis, loss of lumbar lordosis, multiple disc lesions and degenerative changes. Following orthopedic consultation, she was diagnosed to be a case of axial spondyloarthritis (SpA). Acute anterior uveitis of the right eye was treated conservatively, following which she showed marked improvement of symptoms.***

Keywords: acute anterior uveitis, axial spondyloarthritis, uveitic glaucoma, HLA-B27

Take Away Message: Uveitis is the most frequent extra-articular manifestation of axial spondyloarthritis, occurring in up to 1/3rd of the patients. Up to 40% of patients presenting with anterior uveitis have an undiagnosed SpA. So, an effective screening of patients with anterior uveitis is important to enable an early diagnosis of an underlying SpA.

1. Case Report

A 35year-old female presented with pain in the right eye for two weeks which was insidious in onset and associated with redness, photophobia and mild watering. Patient also gave a history of diminution of vision since 6 months. There was history of several similar episodes in the past affecting both the eyes, with the last attack being noted in right eye, 3 months back, all of which resolved spontaneously. There was no history of trauma. However, patient gave a history of gradually progressive low backache with stiffening and limitation of spinal movements since last 10 years.

2. On examination

General examination revealed stooping forward position of neck with flexion deformity of hip. Comprehensive Ophthalmic examination showed impaired visual acuity in both eyes (OD:PL-, OS: 6/24), Hazy Cornea with iris pigments, Anterior Chamber Reaction, Fixed, mid-dilated, non-reactive pupil, raised IOP and Pale Optic Disc in the right eye and presence of few iris pigments with normal IOP in the left eye. AS:OCT showed open angles on both sides.

BCVA	PL-	6/24
IOP	43.4	15
Cornea	Mild haziness, iris pigments in endothelium	WNL
Conjunctiva	WNL	WNL
Sclera	WNL	WNL
AC	Flare 1+, cells 2+ to 3+	WNL
Iris	WNL	WNL
Pupils	Fixed, mid-dilated, non-reactive	Round, regular, reacting to light
Lens	Transparent, dense iris pigments in anterior capsule	Transparent, Few iris pigments in capsule
Fundus	Pale optic disc	WNL

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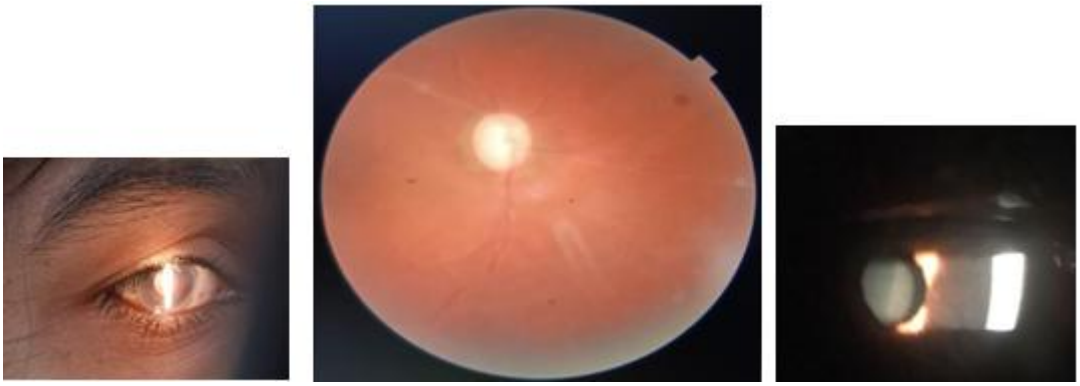
Patient at presentation



Slit lamp images of right eye

Blood tests showed microcytic, hypochromic anaemia with neutrophilia, raised ESR & CRP, along with mildly elevated ALP. HLA typing was positive for HLA-B27.

X-ray of cervical, thoracic, lumbosacral spine revealed multiple abnormalities like dorsal kyphosis, loss of cervical and lumbar lordosis, multiple disc lesions & degenerative changes but normal sacroiliac joints.

3. Results and Observations

Patient was advised orthopaedic consultation, following which she was diagnosed to be a case of axial spondyloarthritis. Acute anterior uveitis of the R/E was treated with full dose of topical steroids, cycloplegics, & IOP lowering drugs, following which she showed marked improvement of symptoms.

4. Discussion

Spondyloarthropathies (SpA) are a group of chronic inflammatory diseases of autoimmune nature sharing common features like involvement of axial skeleton/ peripheral joints, enthestis, dactylitis, typical extra-articular features like anterior uveitis, psoriasis, IBD & HLA-B27 positivity. Axial spondyloarthritis (axSpA) is characterized by predominant involvement of the spine/sacroiliac joints[1]. Uveitis is the most frequent extra-articular manifestation of

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axial spondyloarthritis[2].The prevalence of uveitis increases with disease duration[3].

Typical symptoms of uveitis in spondyloarthritis-

- Sudden onset
- Strictly unilateral, but may "flip-flop"
- Pain, redness, photosensitivity
- Non-granulomatous inflammation
- Often synechiae
- Symptoms of SpA: inflammatory back pain[4]

Criteria for axial spondyloarthritis: < 45 years with backpain for >3months with either of the following
Sacroilitis on imaging + >= 1 SpA feature or HLA-B27 positivity with >= 2 other SpA features
SpA features=Inflammatory back pain/ Raised CRP /HLA-B27+/+ family history of SpA/Anterior uveitis/Arthritis/ enthesitis/ dactylitis/IBD/ psoriasis/Good response to NSAIDS[5]

5. Conclusion

Up to 40% of patients presenting with acute anterior uveitis (AAU) have an undiagnosed SpA. An effective screening of patients with AAU could therefore enable an early diagnosis of an underlying SpA and thus initiate necessary and timely intervention. Further, the risk for ophthalmological manifestations increases with the disease duration in SpA; and patients presenting with ocular symptoms should be referred to an ophthalmologist. Thus, a close collaboration between patient, rheumatologist and ophthalmologist is needed to optimally manage ocular inflammation in SpA.

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