

Original article:

Ocular manifestations in patients with rheumatoid arthritis

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Abstract

Background: Ocular involvement is one of the most important extra articular manifestation of Rheumatoid Arthritis (RA).

Objective: To identify different types of ocular manifestations in RA, to study ocular manifestations in different age and gender of patients with RA.

Method: A descriptive cross sectional study was conducted on patients with known case of RA . Baseline demographic and clinical characteristics of patients were recorded. Ocular manifestations were assessed in all patients.

Result: 40 eyes of 20 patients (male:female,1:5) with RA were studied, most common age group was between 4th and 5th decade. Dry eye was most common ocular manifestation in patients with RA, followed by uveitis.

Conclusion: The prevalence of Rheumatoid Arthritis has regional variation. RA has a predilection for women (3:1), and onset of clinical disease is in 4th and 5th decades. In our study too females were predominant compared to males and the mean age which is affected is 5th decade.

INTRODUCTION

Rheumatoid arthritis (RA) is a common chronic often debilitating autoimmune inflammatory disease affecting multiple organs. Persistent synovial inflammation is the characteristic feature causing cartilage and bone destruction leading to joint deformities and functional limitations. RA affects about 0.8% of general population.¹ RA is a systemic disease with a variety of extraarticular manifestations. It is estimated that 40% of patients may have extraarticular manifestations. These manifestations usually occur in individuals with high titers of rheumatoid factors (RF) or with antibodies to cyclic citrullinated peptide (CCP). These patients have increased morbidity and mortality compared to other patients with RA or age matched normal controls.¹ Ocular manifestations occur in 25% of patients with rheumatoid arthritis. Keratoconjunctivitis sicca (KCS) is the most common ocular manifestation of RA and occurs in 15 to 25% of patients. Episcleritis and scleritis occur less often, 0.17% incidence of episcleritis and 0.67% incidence of scleritis have been reported. RA is the most common systemic condition associated with scleritis. Although anterior uveitis occurs in other rheumatic diseases it is not more common in RA patients than in the general population.³ The primary physicians need to be aware of these ocular disorders so as to provide appropriate referrals to the ophthalmologist as soon as ocular morbidity is suspected. Conversely, it is critical that ophthalmologists recognize that ocular problems in patients with RA are often indicative of active or ongoing systemic disease.

METHODOLOGY

In this prospective study which was conducted from september 2017 to february 2018, 20 patients with Rheumatoid arthritis were included. Detailed history pertaining to systemic disease and ocular disease were noted and detailed ocular examination was done using slit lamp and 90D.

Dry eye was graded in to mild, moderate and severe based on Schirmer’s test.

Aim of study was to identify different types of ocular manifestations in RA and to study ocular manifestations in different age and gender of patients with RA.

The patients included in my study were cases diagnosed as RA and referred to ophthalmology.

These patients were excluded from my study - Patients with uveitis due to other infections like herpes virus ,cytomegalo virus, syphilis, toxoplasma, tuberculosis, Patients with keratoconjunctivitis sicca due to other causes like contact lens use, meibomian gland dysfunction, allergies, Vitamin A deficiency ,Patients with other infective or gouty arthritis. and any other illness that might lead to overlapping of signs and symptoms such as scleroderma.

RESULTS

Ocular manifestations were seen in 40% of patients with RA.

Dry eye was the most common manifestation seen in 30% of the study group.

Among 20 cases of Rheumatoid Arthritis included in the study, females were predominant as compared to male, 5:1.

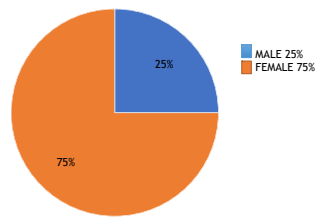
Among 20 cases of RA 8 cases showed ocular involvement, that is 40%

Among 20 cases of RA highest number of patients were seen in 5th decade.

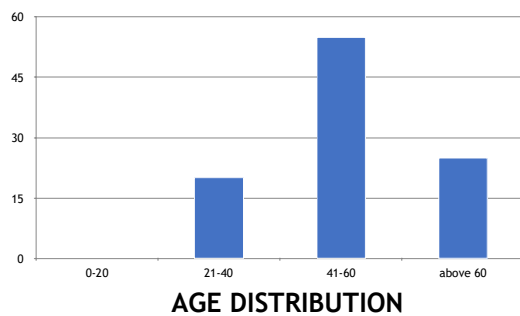
Among 8 cases with ocular involvement the **most common ocular manifestation was dry eye** (in mild, moderate and severe forms) Followed by uveitis, corneal ulcer, keratitis, scleritis , episcleritis and glaucoma out of 8 cases of RA with ocular involvement 4 patients had multiple ocular involvement 2 patients had two ocular complications while one patient had four different types of ocular complications.

OCULAR MANIFESTATIONS

| DISEASE PATTERN | OCULAR INVOLVEMENT | PERCENTAGE (out of 20 patients withRA) | PERCENTAGE (OUT OF 8 patients with ocular involvement) |
|------------------------|--------------------|--|--|
| DRY EYE | 6 | 30% | 75% |
| UVEITIS | 5 | 25% | 62.5% |
| EPISCLERITIS | 2 | 10% | 25% |
| SCLERITIS | 1 | 5% | 12.5% |
| CORNEAL ULCER | 1 | 5% | 12.5% |
| BAND KERATOPATHY | 0 | 0 | 0 |
| VIRAL KERATITIS | 0 | 0 | 0 |
| INTERSTITIAL KERATITIS | 0 | 0 | 0 |
| CONJUNCTIVITIS | 0 | 0 | 0 |
| GLAUCOMA | 2 | 10% | 25% |
| TOTAL | 8 | 40% | 100% |



GENDER PREDISPOSITION



AGE DISTRIBUTION

DISCUSSION

This was a cross sectional study, in which 20 Rheumatoid Arthritis patients were studied. The prevalence of Rheumatoid Arthritis has regional variation. In the current study most common age group of patients were between 4th and 5th decade, which was similar to other studies reported. Female: male ratio was found to be 5: 1 while in other studies it was 3:1.¹⁰⁰ The similar study was done in south india at chettinad hospital showed that females are affected more than males and mean age group of patients were between 51 and 60 years, out of 50 patients 32 cases showed ocular involvement, among 32 cases most common ocular manifestation was dry eye followed by episcleritis, scleritis and iridocyclitis and consistent findings were seen in similar studies done previously.

The different ocular manifestations in RA has been reported differently in different studies, the result of our study showed ocular involvement in 40% (8 out of 20 cases)

In our study the most common ocular manifestation among all cases of RA was dry eye, followed by anterior uveitis, episcleritis, glaucoma, scleritis and corneal ulcer.

CONCLUSION

Ocular involvement is common in RA (40% in our study), dry eye being most common. A significant number of cases are asymptomatic. Regular ophthalmic evaluation of Rheumatoid arthritis patients is needed on a long term basis, as the drugs used to control disease activity like corticosteroids, chloroquine, hydroxychloroquine are known to cause ocular adverse effects which have been noted in the present study also. Posterior subcapsular cataract due to corticosteroid toxicity significantly reduces the visual acuity. Early recognition and stoppage of

the drug prevents further progression of cataract. Also, early pigmentary retinopathy reported following the use of CQ and HCQ in various studies have been found to regress after discontinuation of the drug. This necessitates the periodic ophthalmological evaluation of Rheumatoid arthritis patients on treatment with these drugs so that adverse effects can be detected early. The drugs causing ocular side effects can be stopped to reverse the changes detected on ophthalmic evaluation.

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