



A STUDY ON OCULAR MANIFESTATIONS OF RHEUMATOID ARTHRITIS

Dr. Asra Saleha Siddiqui

Indira Gandhi medical college, Nagpur.

Dr. Aziz Farookh Irfan

Government medical college, Nagpur.

ABSTRACT Aim of this study was to know ocular manifestations in patients with rheumatoid arthritis. A total of 10 patients were enrolled and detailed examination was done. Investigations like Schirmer's test, tear film break up test and Rose Bengal test were performed. Analysis of the findings was done. Results showed dry eye and AAU being the commonest eye manifestation.

KEYWORDS : Ocular inflammation, Rheumatoid arthritis.

INTRODUCTION:

Rheumatoid arthritis is one of the common autoimmune disease which causes chronic inflammation of the joints and other areas of the body. The exact etiopathogenesis of RA is yet unknown. There are many different theories^{1,2,3}. The prevalence of RA worldwide is around 0.8%(0.3-2.1%). Extra-articular manifestation in RA are present in 10-20% of patients which are more frequent in seropositive patients^{1,4}.

Ocular manifestations are one of the important extra-articular manifestations of rheumatoid arthritis. The ocular manifestations include keratoconjunctivitis sicca, episcleritis, scleritis, keratitis, glaucoma and retinal vasculitis. Ocular manifestations occur independently or in association with a disease exacerbation. At times, ocular manifestations herald ominous systemic involvement. Ocular manifestations occur in 25% of patients with RA⁵. At many instances, ocular examination of the patients show sub-clinical ocular disease such as Keratoconjunctivitis sicca (KCS), despite the patient being asymptomatic. This gains importance because; certain ocular procedures such as refractive surgeries are relatively contraindicated in such patients.

There are a few studies in India about ocular manifestations in RA. So this study was conducted to study ocular involvement in patients of RA in a tertiary care hospital in central India.

AIMS AND OBJECTIVES

To study ocular manifestations of Rheumatoid arthritis.

MATERIALS AND METHODS

Inclusion Criteria:

We enrolled patients of all ages and both genders coming with ocular inflammation or adnexal disease to ophthalmic outpatient department and having proven or suspected Rheumatoid arthritis. Study was conducted during the period of October 2014 to October 2016.

Exclusion Criteria:

We excluded patient having ocular inflammation with systemic disease other than Rheumatoid arthritis and those of non-willing patients.

EXAMINATION

Patients of ocular inflammation with confirmed or suspected RA were enrolled. In suspected cases, patients were evaluated for presence of RA with the help of physician. Initially patients were inspected under diffuse light followed by anterior chamber examination of both the eyes under slit lamp for presence of episcleritis, scleritis, pterygium, keratitis and posterior subcapsular cataract. Then, posterior chamber of both the eyes were visualized using direct ophthalmoscope for choroid nodules, retinal vasculitis and retinal detachment.

The tear film adequacy was tested using Schirmer's test and its integrity was analysed using tear film break up test (BUT). Finally, the presence of dry eye was confirmed using Rose Bengal test. The ocular findings in all the patients were documented and analysed.

RESULTS AND OBSERVATIONS:

General characteristics:

During present study we enrolled 10 patients (5 male & 5 female) of RA having ocular involvement. The age, sex distribution of patients included in the present study has been represented in table 1. The mean and standard deviation of age included in the present study is 42.9 +6.2 yr. Most common age group of affection in males was 51-60yr while in females was 31-40 yr.

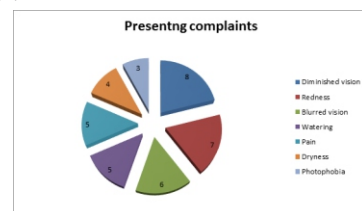
Table 1: Age and sex distribution of RA patients in the present study.

| Age (Years) | No. of patients | |
|-------------|-----------------|--------|
| | Male | Female |
| 21-30 | 01 | 00 |
| 31-40 | 01 | 03 |
| 41-50 | 01 | 02 |
| 51-60 | 02 | 00 |
| Total | 05 | 05 |

PRESENTING COMPLAINTS & OCULAR MANIFESTATIONS

Most common presenting complaint was diminished vision f/b redness as shown in figure 1.

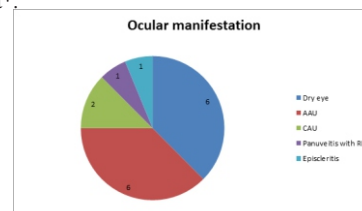
Figure 1: Presenting complaints in cases of RA with ocular involvement*.



(* - single case may have multiple ocular complaints)

Most common ocular manifestation was dry eye f/b acute anterior uveitis (AAU) as shown in figure 2.

Figure 2: Ocular manifestation in cases of RA with ocular involvement*.



(* - single case may have multiple ocular manifestation)

Ocular involvement was more commonly bilateral and recurrent in RA as shown in Table 2.

Table 2: Ocular involvement in RA according to laterality and recurrence.

| Gender | Unilateral | Bilateral | Recurrent | Nonrecurrent |
|--------|------------|-----------|-----------|--------------|
| Male | 01 | 04 | 02 | 03 |
| Female | 03 | 02 | 04 | 01 |

Discussion:

We enrolled 10 cases of RA with ocular involvement. In present study, we found that in rheumatoid arthritis with ocular manifestation both male and female were equally affected.

In a study by Zlatanović et al⁶ found that females (87%) were more commonly having Rheumatoid arthritis with ocular manifestation than males. Shama et al⁷ also found that females (87%) were having ocular involvement in Rheumatoid arthritis more commonly than males. This could be attributed to study being carried out in a developing country and poverty can be the reasons for women not approaching health care system for mild to moderate manifestation of Rheumatoid arthritis which explains equal affection of both genders in present study.

In present study, we found that in rheumatoid arthritis most common ocular diagnosis was dry eye (60%) and AAU (60%).

Tayel et al⁸ in his cross sectional study done in Egypt found that in rheumatoid arthritis AAU (50%) was most common ocular diagnosis followed by corneal involvement (20%). They has not mentioned about dry eye status in their study.

Williamson J⁹ found that dry eye was the most common ophthalmic manifestation in 4,500 patients examined with rheumatoid arthritis. Ausayakhun et al¹⁰ in his study found that in cases of rheumatoid arthritis, dry eye was seen in 46% cases. Zlatanović et al⁶ in his study found that most common ocular diagnosis in cases of rheumatoid arthritis was keratoconjunctivitis sicca (64%). Shama et al⁷ found that most common ocular diagnosis in cases of Rheumatoid arthritis was dry eye (94%). Ravibabu et al¹¹ reported that in rheumatoid arthritis cases most common ocular diagnosis was dry eye (40%) followed by episcleritis (05%). Hassan et al¹² found that in rheumatoid arthritis cases most common ocular diagnosis was dry eye (39%) followed by uveitis (20%). Their findings were similar to present study.

CONCLUSION

The major burden of RA is in the age group of 31-40 years. The ocular manifestations witnessed in the present study were dry eye f/b AAU. Ocular involvement in RA is commonly bilateral and recurrent.

LIMITATIONS

Study population was small. Hence further studies are required.

REFERENCES

- Sahateju-Meka V, Rexhepi S, Manxhuka-Kërliu S, Rexhepi M. Extraarticular manifestation of seronegative and seropositive reumathoid arthritis Bosn. J Basic Med Sci 2010; 10 (1): 27-31.
- Lilleby V, Gran JT. Systemic rheumatoid arthritis: Tidsskr Nor Laegeforen 1997; 117 (29):4223-4225.
- Sobrin L, Kim EC, Christen W, Papadaki T, Letko E, Foster CS. Infliximab therapy for the treatment of refractory ocular inflammatory disease. Arch Ophthalmol 2007; 125(7):895-900.
- Sahateju-meka V, Rexhapi S. Manxhuka-kerliu S. Rexhepi M. Extra- articular | manifestation of seronegative and seropositive rheumatoid arthritis. Bosn. J Basic med Sci | 2010;10(1):27-31.
- Harper SL, Foster CS, The ocular manifestations of rheumatoid disease. Int Ophthalmol Clin 1998;38:1-19.Review.
- Zlatanović G, Veselinović D, Cekić D et al. Ocular manifestation of rheumatoid arthritis different forms and frequency. Bosnian journal of basic medical sciences. 2010; 10 (4): 323-327.
- Shama Prakash K, Karthik K. A Study on Ocular Manifestations of Rheumatoid Arthritis in a Tertiary Care Hospital in South India. Indian Journal of Applied Research. 2015;5(9):223-25.
- Tayel MY, Mohannad N, El Gerby AH et al. Prevalence and pattern of ocular involvement in patients attending Alexandria university Rheumatology clinic: a pilot study. International Journal of Advanced Research. 2015;3(6): 153-158.
- Williamson J. Incidence of eye disease in cases of connective tissue disease. Trans Ophthal Soc UK. 1974;94: 742-5.
- Ausayakhun S, Louthrenoo W, Aupapong S. Ocular Diseases Patients with Rheumatic Diseases. J Med Assoc Thai. 2002; 85: 855-862.
- Ravibabu G, Sailaja B, Prasanna Sundari G. Ocular Involvement in Connective Tissue Disorders in a Tertiary Hospital. 2015;4(3): 1692-95.
- Hassan KM, Manish S, R. Ravikumar, Syed Asghar Hussain. Ocular manifestations of rheumatic diseases: A hospital based study. Indian Journal of Clinical and Experimental Ophthalmology.2016; 2(3): 242-247.