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Clinical profile of patients with anterior uveitis

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Abstract
The anterior uveitis can be categorized as iritis, anterior cyclitis and iridocyclitis. It often causes a painful red eye. Patients with anterior uveitis complain of redness, photophobia, tearing and blurred vision. Acute anterior uveitis causes mild vision loss but still contributes significantly to the total burden. It causes vision loss both directly through inflammation and via complications such as macular edema, glaucoma, cataract, and others. A prospective clinical study was conducted. The material for this study included, 50 patients between age 20 and 80 years, attending outpatient department, Department of Ophthalmology with signs and symptoms of anterior uveitis. In the present study it was observed that most common presentation was acute anterior uveitis, accounting for 76%, then chronic 18% and only 6% of the patients had recurrent anterior uveitis. In the present study 45 (90%) patients had non granulomatous inflammation and in 5 (10%) patients it was granulomatous inflammation. Thus nongranulomatous inflammation was more common than granulomatous inflammation.

Keywords: anterior uveitis, granulomatous inflammation, cataract

Introduction
Uveitis" is one of the most common forms of intraocular inflammation and affects mainly children and young adults. It includes a large group of intraocular inflammatory diseases of diverse etiology. On several occasions, it reflects diseases that are developing elsewhere in the body and uveitis may be the first evidence of such systemic diseases [1]. Variation in the spectrum of disease is largely due to complex geographic, ecological, racial, nutritional, and socioeconomic differences. The anterior uveitis is the most common type of all uveitic entities (57.4%). On the basis of overall clinical presentation, acute unilateral, noninfectious and nongranulomatous forms occur more frequently. Idiopathic anterior uveitis is more common in all age groups. Mean age at presentation is 38.3 years and commonly affects middle aged (17-59 years). It is more common in males (61.3%) compared to females (38.6%) [2].
The precise cause of anterior uveitis is often obscure and the correct diagnosis is often challenging. The cause of inflammation might be infections agent or trauma, but in most cases the underlying mechanism appears to be autoimmune in nature[3]. In order to enhance understanding and management of ocular inflammation International ocular Inflammation Society (IOIS) has been founded [4].
Anterior uveitis is most common form of uveitis and accounts for an annual incidence rate of about 17 cases per 1,00,000 populations [5].
The anterior uveitis can be categorized as iritis, anterior cyclitis and iridocyclitis. It often causes a painful red eye. Patients with anterior uveitis complain of redness, photophobia, tearing and blurred vision. Acute anterior uveitis causes mild vision loss but still contributes significantly to the total burden. It causes vision loss both directly through inflammation and via complications such as macular edema, glaucoma, cataract, and others. The treatment for uveitis itself can result in both ocular and systemic complications [6]. The morbidity associated with the disease is moderately high.

Methodology
A prospective clinical study was conducted. The material for this study included, 50 patients between age 20 and 80 years, attending outpatient department, Department of Ophthalmology with signs and symptoms of anterior uveitis.
The anterior uveitis following penetrating ocular injuries, corneal ulcer, intraocular surgeries and if associated with intermediate, posterior or panuveitis were excluded from this study. Masquerade syndromes presenting as anterior uveitis has also been excluded.

A standard clinical proforma was filled in all cases, which included salient feature in history, visual acuity using Snellens visual acuity chart, clinical findings, laboratory investigations, and the final aetiology. All patients were examined under slit lamp.
Details on disease severity, laterality, chronicity, ocular signs and associated systemic conditions were noted.
Presentation was considered as unilateral if active inflammation was present in only one eye and bilateral if both eyes presented with active inflammation.
Intraocular inflammation was assigned anterior uveitis based on International Uveitis Study Group Criteria.
The inflammation was defined as acute if symptoms were present for less than three months, chronic if symptoms were present for three months or more and recurrent if two or more episodes of inflammation separated by a disease free period.
Anterior uveitis was defined granulomatous if large keratic precipitates, nodules at pupillary margin (Koeppe nodules) or nodules on or within the anterior iris stroma (Busacca nodules) were present.

Results

Table 1: Age Distribution

Sl. No.	Age (yrs)	Number	Percentage
1	20-30	20	40
2	31-40	12	24
3	41-50	8	16
4	51-60	5	10
5	61-70	3	6
6	71-80	2	4

In present study anterior uveitis accounted to 40% in 20- 30 years age group, 24% in 31- 40 years age, 16% in 41- 50 years age, 10% in 51- 60 years age, 6% in 61- 70 years age and 4% in 71-80 years age group. It was seen most commonly in 20-40 year age group, accounting for 64%. It was less common in patients over 60 years (10%).

Table 2: Clinical Presentation

Sl. No.	Presentation	Number	Percentage
1	Acute	38	76
2	Chronic	9	18
3	Recurrent	3	6
Total		50	100

In the present study it was observed that most common presentation was acute anterior uveitis, accounting for 76%, then chronic 18% and only 6% of the patients had recurrent anterior uveitis.

Table 3: Type of Inflammation

Sl. No.	Type	Number	Percentage
1	Nongranulomatous	45	90
2	Granulomatous	5	10
Total		50	100

In the present study 45 (90%) patients had non granulomatous inflammation and in 5 (10%) patients it was granulomatous inflammation. Thus nongranulomatous inflammation was more common than granulomatous inflammation.

Discussion

The incidence was found to be high between 20-40 years of age (64%) and less common over sixty years (10%). Idiopathic anterior uveitis was the commonest cause which can be explained by high antigenicity found in this age group. In older age group anterior uveitis was usually of phacolytic origin.
It was observed that males were affected more (56%) compared to females (44%). This may be because men tend to seek medical attention more often than women and socio-economic habits may put male patients at a greater risk for development of anterior uveitis. In Rathinam *et al* study 61.3% were males and 38.7% were females [7]. Alezandro Rodriguez *et al* reported 38.9% male and 61.1% female involvement in their study [8].
In this study 45 patients (90%) had non granulomatous inflammation and in 5 patients (10%) it was granulomatous. Findings are comparable with previous studies. Out of 5 granulomatous inflammation 4 were chronic and 1 patient had recurrent presentation. Granulomatous type of inflammation was observed in three patients of tuberculosis, one patient of herpes and one patient of leprosy.
In present study, uveitis was found to be associated with diabetes mellitus in five patients (10%) and hypertension in two (4%) patients. All those who had diabetes mellitus were above 50 years of age. Three out of five diabetes mellitus patients had chronic uveitis. In a study of uveitis presenting in elderly it was noted that diabetes should probably be considered a risk factor for uveitis development.

Conclusion

- Patients in the age group of 20-40 years were commonly involved.
- Labourers were by for the commonly involved group in this study, blunt trauma was the leading cause in them, and this may be due the risk of injury at their work place. Next common group was that of officials and most of them had idiopathic disease.
- Majority of the patients had acute presentation.

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