



SPECTRUM OF UVEITIS IN PATIENTS ATTENDING TERTIARY EYE CARE HOSPITAL IN SOUTHERN INDIA

Ophthalmology

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ABSTRACT

Aim: To study the pattern of uveitis in different age groups of patients visiting Ophthalmology OPD in Chennai

Materials and Methods: It is a prospective study, done over a duration of one and half year from September 2018 to February 2020. A total of 115 patients were enrolled in the study and divided into 3 groups, based on their age. In each group, demographic analysis, type, etiology and complications of uveitis were studied.

Results: Uveitis was found to be most common in the middle age group. Anterior uveitis was the most common site of presentation in all age groups. Non-infectious causes accounted for more than 50% of the total cases, with idiopathic being the most common cause in pediatric and elderly.

Conclusion: Proper evaluation and complete workup of uveitis cases, along with investigations is absolutely necessary in all age groups. Idiopathic causes are most common in pediatric and elderly population, with traumatic being most common in the middle age.

KEYWORDS

uveitis, demographic analysis

INTRODUCTION:

Uveitis can be defined as the inflammation of the middle vascular coat of the eye, involving the iris, ciliary body, and choroid. Rarely, it may involve other adjacent tissues in the eye, namely retina.

Uveitis can broadly be classified into anterior uveitis, posterior uveitis, intermediate uveitis, or panuveitis, based on classification given by the International Uveitis Study Group. Furthermore, uveitis can be acute or chronic. Inflammation of sudden onset, lasting less than 3 months is termed as Acute Uveitis whereas the inflammation lasting longer than 3 months is termed Chronic Uveitis.

Visual disability can occur in any age group, though occurrence in middle age is more common. Diagnosis in pediatric age group is very important because uveitis is usually asymptomatic, poor patient cooperation and inadequate communication.^[1,2,3]

Uveitis, if left untreated, can damage vital eye tissues, leading to permanent loss in vision. It accounts for upto 25% of blindness in India, usually due to its complications^[4,5].

Occurrence of uveitis in the elderly age group was quite uncommon. Darrell et al. in 1962 demonstrated that only 14% of uveitis patients were considered elderly (>60 years of age).

The objective of our study was to identify the pattern of uveitis in a tertiary care hospital in southern India and to determine if there was a seasonal variation to the incidence rate of uveitis.

MATERIALS AND METHODS:

The study included patients who presented to the Ophthalmology OPD at our hospital from September 2018 to February 2020. The patients who gave their consent were included in the study. The consent for patients of pediatric age group was taken from their accompanying guardian.

The first group consisted of 26 patients, which involved pediatric and adolescent individuals upto the age of 18 years. The second group consisted of 51 patients, between the ages of 19-59 years. The third group involved 38 patients who were elder than 60 years of age.

A detailed questionnaire, including medical history, family history and demographic details (age, gender, laterality, etiology and distribution of disease) of each patient, was used to assess uveitis. This was followed by a full ocular examination including Snellen's visual acuity, slit lamp examination and fundus examination and specific laboratory investigations to diagnose inflammatory and infectious etiologies.

Autoimmune causes were detected by tests investigating Human Leukocyte Antigen (HLA) typing and auto-antibodies. Magnetic Resonance Imaging (MRI) and chest imaging were ordered when necessary.

Complications included cataract, ocular hypertension, amblyopia, cystoid macular edema (CME), posterior synechiae and band keratopathy.

RESULTS:

One hundred forty nine (149) eyes of one hundred fifteen (115) patients were enrolled in this study.

There was a slight female predominance in the young and aged population, with a slight male predominance in middle age.

The mean age at presentation was 13.6±4.7 years, 38.1±3.1 years and 63.2±2.7 years for group 1, 2 and 3 respectively.

Bilaterality was least common in the middle age, where the most common cause of uveitis was trauma.

Anterior uveitis was the most common site of inflammation, followed by panuveitis, posterior and finally intermediate uveitis.

With regards to the different etiologies, idiopathic uveitis was the most common in pediatric and geriatric age group, whereas trauma was the most common etiology in the middle age.

There were about 71% of the patients who went on to develop various complications, of which 75% were considered sight threatening (macular scarring being the most common cause, closely followed by complicated cataract and retinal detachment).

Table 1

	Group 1	Group 2	Group 3
	<i>Age Distribution</i>		
Age Range (in years)	18	19-59	≥ 60
Number of patients	26	51	38
Mean age (in years)	13.6 ± 4.7	38.1 ± 3.1	63.2 ± 2.7
	<i>Gender Distribution</i>		
Number of males (%)	11 (42.3)	30 (58.82)	14 (36.84)
Number of females (%)	15 (57.7)	21 (41.18)	24 (63.16)
Patients with bilaterality	<i>Bilaterality</i> 9 (34.62)	10 (19.61)	15 (39.47)

(%)			
Anterior uveitis (%)	<i>Location</i>		
Posterior uveitis (%)	15 (57.8)	42 (82.4)	26 (68.4)
Intermediate uveitis (%)	5 (19.2)	2 (3.9)	5 (13.2)
Panuveitis (%)	3 (11.5)	4 (9.8)	6 (15.8)
	3 (11.5)	3 (5.9)	1 (2.6)
	<i>Etiology</i>		
Infectious (in %)	47	24	41
Non-infectious (in %)	53	76	59

DISCUSSION:

This study was done to analyse the pattern of uveitis in all the different age groups of population (pediatric, middle age and senile).

In our study, the pediatric population accounting for almost 22% of the total uveitis patients, was higher than the percentage reported by other studies^[6,7,8].

There was male predominance in middle age group in our study, and a similar male predominance has been reported from many developing countries.^[9,10,11,12]

Idiopathic uveitis, which accounted for 45-50% of the total cases, is in agreement with recent reports (30-55%)^[12,13,14,15]. JIA was found to be the main culprit of identifiable non-infectious causes of uveitis in the pediatric age group^[12,13,15].

Recent reports- including ours- showed that posterior uveitis in the pediatric age group dropped to 20%, while anterior uveitis increased to 58%^[16,17,18].

A number of limitations can be considered in our work. A small sample size of 115 patients is the most important among them. Being a tertiary center, only the more severe cases for uveitis might have presented to the department. Inability to communicate and asymptomatic nature in pediatric group may have led to later presentation.

To explain the difference in uveitis demographics, it is important to understand the changes in immune system associated with age. These changes are referred to as Immuno-senescence^[19]. Moreover, the ability of lymphocytes to proliferate and activate also decreases with age.

The treatment is etiology-specific. Specific anti-microbial medicines are given, in case of infectious etiology. On the other hand, corticosteroids and immunosuppressors are used in case of inflammatory or autoimmune etiology.

CONCLUSION:

Uveitis being a major cause of visual disturbance and blindness, conducting periodic surveys provides us with essential knowledge for diagnosing uveitis and providing proper medical management to the society as it usually affects young adults.

Uveitis in old age represents around 30% of the total uveitis population.

Moreover, there is a female preponderance in the young and elderly group. Anterior uveitis is the most common presentation and non-infectious causes account for majority of the cases.

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