Original Article

Pattern of uveitis in a tertiary eye care center of central India: Results of a prospective patient database over a period of two years

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Purpose: To identify the pattern of uveitis at a tertiary eye center in the central India and to compare with other reported studies. **Methods:** This prospective observational study was undertaken with all new uveitis cases attending the uvea clinic between January 2016 and September 2017. A standard clinical protocol and detailed investigations were done to find out the specific cause of uveitis. **Results:** A total of 210 patients with uveitis were evaluated. Anterior uveitis (47.1%) followed by intermediate uveitis (31.90%) were the most common type of uveitis in this study. Specific etiology of uveitis could be established in a majority of cases of uveitis (51.91%), except in intermediate uveitis group where the cause was mostly idiopathic (77.61%). **Conclusion:** Tuberculosis (46.29%) and viral etiology (38.88%) were the most common forms of infective uveitis (25.71%), whereas spondyloarthropathy (27.27%) and traumatic cause (14.54%) were the most common in the noninfective group of uveitis (26.19%).

Key words: Etiology, idiopathic, pattern, tuberculosis, uveitis, visual improvement

Uveitis is a sight-threatening disease entity with intraocular inflammation that arises from various causes. It may lead to irreversible visual loss if not treated adequately and timely. Around 5%–20% of cases of legal blindness in developed countries and 25% of blindness in the developing world are due to uveitis.[1] Hence, early detection and timely treatment are of great importance.[2] The correct diagnosis of uveitis is often challenging as these patients present with a plethora of ocular as well as systemic signs and symptoms. Despite improved understanding of the etiopathogenesis and evolution of advanced diagnostic techniques, the etiology of uveitis still remains elusive in a significant number of cases. In different parts of the world, various patterns and distributions of uveitis were most likely due to the variations in geographic, genetic, or alimentary factors. Epidemiologic studies help in determination of the causes of uveitis and their prevalence. Collaborative studies between different areas would be most helpful in establishing etiology and pattern of uveitis. This helps devise appropriate measures for prevention and treatment. This study attempts to concentrate on the most recent information on the epidemiology of uveitis and compare it with previous knowledge. Although significant number of studies on epidemiological pattern of uveitis have been reported from different parts of world, very few studies are available from India, and to the best of our knowledge this is the first reported prospective series of pattern of uveitis from central India.

The primary objective of this study is to identify the pattern of uveitis at a major tertiary eye center in the central India and to compare it with other reported studies. This tertiary eye care center situated in the central India caters around 30 lakh population of the district and is the tertiary referral center for the entire state. Uveitis accounted for around 1% of our hospital-based daily ophthalmological outpatient visits, which is around two to three per day. Hence, this study provides new insights into the magnitude, risk factors, and causes of uveitis across all age groups and is the pioneer documentation of uveitis to analyze the epidemiology and etiology presenting to a tertiary eye care center in central India.

Methods

This prospective cross-sectional study included all the cases of uveitis attending the eye outpatient department from January 2016 to September 2017. Patients who could not be worked up completely as per protocol or did not give consent for the study were excluded. This study is the first of its kind to reflect the magnitude of uveitis in a large sample of central Indian population and adequately puts down the incidence, sociodemographic pattern, and visual outcome of uveitis in central India which has not been reported earlier. A Medline search was initiated with PubMed and Medline plus for a

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combination of cluster of keywords – prevalence, incidence, epidemiology, etiology, intervention, uveitis, eye, ocular, anterior, intermediate, posterior, central, India, and outcome. One keyword/phrase from each cluster was used, unless repeated. All reports consisting of ≥25 patients published between January 1997 and April 2017 were evaluated. A total of 273 patients of uveitis were registered during this time period; 63 patients were excluded from the study who could not undergo tailored investigations as per uveitis protocol or they did not consent for the study. A total of 210 patients with uveitis were enrolled and evaluated in this study. A detailed history was taken. Demographic information including age, sex, and laterality were noted for all patients. Complete ophthalmic examination was done which included visual acuity, slit-lamp examination, tonometry, and indirect ophthalmoscopy. Tailored investigations were carried out in each case based on their clinical presentation including optical coherence tomography and fundus fluorescein angiography wherever required.

The investigations were ordered keeping in mind probable differential diagnosis in each case and included complete blood count, erythrocyte sedimentation rate, C-reactive protein, urine analysis, rheumatoid factor, antinuclear antibody, HLA B27 by qualitative polymerase chain reaction, ELISA for HIV, Mantoux test, anti-toxoplasma antibody, serum viral antibody, chest X-ray, chest computed tomography (CT), and X-rays of the sacroiliac joint and lumbosacral spine.

Consultation with concerned medical specialist was done whenever needed. The final etiological diagnosis was made based on clinical features, laboratory investigations, and systemic evaluation. In cases where the specific etiology could not be identified, the term "idiopathic uveitis" was used.

Anatomic location of the inflammation and classification was assigned based on the Standardization of Uveitis Nomenclature (SUN) Criteria. Patients in whom the posterior segment was not visible due to media opacity were evaluated with B-scan ultrasonography. In cases with infectious uveitis, specific treatment was initiated when indicated, supplemented by anti-inflammatory therapy as appropriate.

Ethical clearance was obtained from the institutional human ethics committee.

Statistical analysis

The data obtained were subjected to statistical analysis after systematic compilation. A master table was prepared with total data subdivided, distributed meaningfully, and presented as individual tables along with graphs. Statistical procedures were carried out in two steps: data compilation and presentation.

Statistical analysis was done using Statistical Package of Social Science (SPSS Version 20; IBM Corp., Chicago, IL, USA). Data comparison was done by applying specific statistical tests to find out the statistical significance of the comparisons. Quantitative variables were compared using mean values and qualitative variables using proportions. Significance level was fixed at $P \leq 0.05$.

Results

During the study period, 210 patients were diagnosed with uveitis including 107 male (50.95%) and 103 female patients (49.04%). The male: female ratio was 1.03 which was not statistically significant in this study. The mean age at presentation was 46.60 ± 11.21 years (median age, 46.5 years; range: 20–74 years). In 119 (56.66%) patients, uveitis was unilateral and 91 (43.33%) had bilateral diseases. In anterior uveitis (78.88%), the disease was mostly unilateral as opposed to the intermediate uveitis which majorly presented with bilateral presentation (70.14%) [Table 1]. The acute onset of the disease was common in the anterior and posterior uveitis. In intermediate and panuveitis, most of cases were of chronic nature.

Site and etiology of uveitis

Based on the SUN working group anatomical classification, anterior uveitis (n = 99) (47.14%) was most common type, followed by intermediate uveitis (n = 67) (31.90%), posterior uveitis (n = 27) (12.85%), and finally panuveitis (n = 17) (8.1%). Regarding the etiology of uveitis, out of 210 patients, the specific cause was identified in 109 patients (51.91%) and 101 patients (48.09%) were classified with idiopathic uveitis. Infectious etiology was diagnosed in 54 patients (25.71%), of which ocular tuberculosis (TB) (46.29%) was the most common infection, classified as probable TB in 15 patients (27.77%) and possible TB in 10 patients (18.51%). Patients with tubercular uveitis were identified and classified based on the clinical signs of ocular TB and classification done as proposed by Gupta *et al*.[3] Toxoplasmosis was identified in six cases (11.11%). The diagnosis of leprosy was mainly based on the clinical signs and symptoms including skin manifestation and nerve involvement with skin smear positive for acid-fast bacilli. Viral uveitis was diagnosed clinically and with viral antibody. Appropriate treatment was administered in all cases. The treatment of tubercular uveitis needs special mention here, being the common infectious cause of uveitis in this region. All patients with tubercular uveitis received category 1 ATT (2HRZE + 4HRE) daily dose as per the revised national tuberculosis control programme guidelines. Concomitant oral corticosteroids or topical steroids were administered in tapering doses depending on disease activity with the aim

Table 1: Anatomical classification of uveitis with demographic details

Variables	All uveitis cases *n* (%)	Anterior uveitis *n* (%)	Intermediate uveitis *n* (%)	Posterior uveitis *n* (%)	Panuveitis *n* (%)
Number (*n*)	210	99 (47.14%)	67 (31.90%)	27 (12.85%)	17 (8.1%)
Age (years), mean±SD	46.60±11.21	46.72±11.45	49.53±9.48	45.73±10.35	35.45±10.45
Age (years), median (range)	46.5 (20-74)	45 (23-67)	48 (26-74)	50 (30-61)	38 (20-49)
Sex M:F	107:103	55:44	30:37	12:15	10:7
Laterality, unilateral:bilateral	119:91	78:21	20:47	14:13	7:10

SD: Standard deviation

to protect vision, control ocular inflammation, and prevent recurrence of inflammation.

Among patients with noninfectious uveitis (n = 55) (26.19%), HLA B27-positive spondyloarthropathy (n = 15) (27.27%) was most common cause followed by traumatic etiology (n = 08) accounting for 14.54% of cases [Table 2]. Sarcoidosis was identified in two cases (3.6%). All our cases were of presumed sarcoidosis based on the presence of bilateral hilar lymphadenopathy on chest X-ray/ chest CT with a compatible uveitis as per the Diagnostic Criteria for Ocular Sarcoidosis Developed by the International Workshop on Ocular Sarcoidosis 2009.[4]

Complications

Among 210 cases, 59 cases (28.09%) were observed to have complications of uveitis, 36 out of 59 (61%) at the time of presentation and 23 (39%) during the course of follow-up. The most common complication was cataract in 41 patients (19.5%) and was most commonly seen in the anterior uveitis group; most of them were noted at presentation. Secondary glaucoma, cystoid macular edema, and hypotony were more common in the intermediate uveitis group [Table 3]. Tractional

retinal detachment was seen in three cases of long-standing intermediate uveitis. Choroidal neovascular membrane was noted most commonly in the posterior uveitis group.

Discussion

The variation in the spectrum of uveitis is largely due to complex geographic, ecological, racial, nutritional, and socioeconomic differences. Our uveitis study population had fairly homogeneous background and a majority of patients belonged to central India. Uveitis is a disease with myriad presentations and etiologies. For optimal and prompt management of any uveitic entity, reaching a probable diagnosis is vital which is influenced by clinical signs in a patient and other epidemiological factors. For any clinical parameter with comparable likelihood ratios, the final diagnosis will be made depending on the prevalence of various etiological factors in that geographic areas.[4] Hence, the anatomical and etiological distribution of uveitic entities would vary in different geographical regions depending on the host factors (e.g., genetic makeup of population) and other environmental factors (e.g., prevalent infectious agents).

Table 2: Etiological classification of uveitis

Etiology	n	% of total uveitis cases
Infectious causes, n=54 (25.71%)		
Tubercular	25	11.90%
Viral	21	10%
Toxoplasma	06	2.85%
Leprosy	02	0.95%
Noninfectious causes, n=55 (26.19%)		
Spondyloarthropathy (seronegative/HLAB27+)	15	7.14%
Traumatic	08	3.80%
Juvenile idiopathic arthritis	06	2.85%
Lens-induced	05	2.38%
Multifocal chorioditis	05	2.38%
Serpiginous choroidopathy	04	1.90%
Fuch's heterochromic cyclitis	03	1.42%
Sarcoidosis	02	0.95%
Vogt kayanagi harada disease	02	0.95%
Behcet's disease	02	0.95%
Sympathetic ophthalmia	01	0.47%
Posner-Schlossman	01	0.47%
Rheumatoid arthritis	01	0.47%
Idiopathic, n=101 (48.09%)		

Table 3: Distribution of complication of uveitis

Complication	Anterior uveitis 99 (47.14%)	Intermediate uveitis 67 (31.90%)	Posterior uveitis 27 (12.85%)	Pan uveitis 17 (8.1%)
Cataract (41) (19.5%)	25 (25.25%)	13 (19.4%)	1 (3.7%)	2 (11.76%)
Glaucoma (5) (2.51%)	1 (1%)	3 (4.4%)	0	1 (5.88%)
Band-shaped keratopathy (1) (0.27%)	1 (1%)	0	0	0
Cystoid macular edema (5) (2.51%)	0	3 (4.4%)	1 (3.7%)	1 (5.8%)
Hypotony (3) (1.95%)	1 (1%)	2 (2.98%)	0	0
Choroidal neovascular membrane (4) (1.39%)	0	1 (1.49%)	2 (7.4%)	1 (5.8%)

In a geographically vast country like India, these variations are expected in different regions of the same country. The geography appears to be a factor in the epidemiology of uveitis. Panuveitis is particularly common in Japan, and along with posterior uveitis is remarkably common in Africa, whereas the anterior uveitis is unusual in South Africa and panuveitis is more common than the posterior uveitis in India.[5]

There is also a temporal variation in the distribution of uveitis in studies from the same geographical region, possibly due to evolving understanding of uveitic entities and identification of newer diagnostic patterns.[6] Biswas *et al.* in their recent article have compared the changing pattern of uveitis in south India and conclude that anterior uveitis was the most common in both the studies (1995 vs. 2013), but human leukocyte antigen-B27 positivity uveitis (29.83% vs. 14.5%; $P < 0.05$) and viral retinitis (6.81% from 0.76%, $P < 0.05$) had increased in the present era. However, a declining trend in cases of toxoplasmosis was observed ($P = 0.0545$). The prevalence of TB has significantly increased in the present era (22.5% vs. 0.64%; $P < 0.0001$).[7] This was the rationale behind this study to assess the profile of uveitis pattern in this part of India and comparing the same with other parts of India and abroad.

In this study, the mean age at presentation was 46.60 ± 11.21 years. Uveitis may manifest in any age group. However, adults age 20–50 years are most commonly affected, with reports ranging from 60% to 80% of the total number of uveitis cases occurring in this age group.[8,9] In our study, slightly higher incidence of uveitis was seen in males (51%) when compared with females (49%). This is comparable to various studies from India[10-17] and abroad.[18-23] In developing countries, men tend to seek medical attention more often than women. Gender appears to have an effect on the type of the inflammation. The characteristic example of male preponderance is HLA-B27-associated anterior uveitis (3:1). On the other hand, examples of female preponderance include the chronic anterior uveitis of JIA (5:1).[8] Higher incidence of anterior uveitis (47.14%) was seen in our study when compared with Henderly *et al.*,[18] (27.8%) and Biswas *et al*. (39.28%).[10] Anatomical distribution of uveitis in this study was comparable with other regional studies in India.[14,15,24] In a few reports from Iraq[16] and Japan,[17] posterior uveitis was the most common presentation of uveitis. Studies from Saudi Arabia[21] and Lebanon[22] and a previous study from Taiwan reported panuveitis to be the most common presentation of uveitis. In our study, uveitis was unilateral in 119 patients (56.66%) and bilateral in 91 patients (43.33%) and bilateral involvement was more often seen in intermediate uveitis and panuveitis. Similar results were also observed in a study from Germany, in which bilateral involvement in intermediate uveitis was present at a ratio of 4:1 and at a ratio of 3:1 in panuveitis.[23]

The specific etiology or disease entity of uveitis was identified in 109 cases (51.91%). According to a review study about global variation and pattern changes in the epidemiology of uveitis, anterior and intermediate uveitis were more often found to be idiopathic than posterior uveitis and panuveitis.[12] In our series, we also noted that the idiopathic form accounted for 37.37% of cases of anterior uveitis and 77.61% of cases of intermediate uveitis. It is apparent that in developing countries, certain diagnoses are difficult to confirm, due to the limited availability of specific diagnostic tools, leading to a higher frequency of presumed idiopathic uveitis. Increased use of newer diagnostic techniques may help reduce the number of idiopathic cases.

Infectious uveitis accounted for 25.71% (54 cases) of patients with uveitis in our series. According to a review of the worldwide epidemiology of uveitis, infectious uveitis accounts for a relatively minority of cases in the developed countries (11–21%) and is more common in the developing world (30%–50%).[1] Our distribution was more like those in the developing countries. The causes of granulomatous uveitis in the developed world constitute sarcoidosis (0.5%–18.1%), Vogt kanayagi harada disease (0.4–10.3%), and sympathetic ophthalmia (0.2–2.1%). In contrast, in the developing countries, TB (0.2%–30%) and leprosy (0.2%–1.2%) are the main causes of granulomatous uveitis.[5]

TB is the major cause of uveitis in all groups, 11.39% cases among a total of 210 cases of uveitis and 5.05% among the anterior uveitis group, 14.92% among the intermediate uveitis group, 22.22% among the posterior uveitis group, and 23.58% among the panuveitis group. A majority of Indian studies had similar observation [Table 4], the reason behind this being the endemicity of TB in our country. Within India, some differences were observed in the infectious etiology as compared in Table 4. Das *et al*.[14] reported toxoplasmosis as a major cause (40.21%) of posterior uveitis, which is much higher than any reports from India including ours. Rathinam *et al*.[25] found leptospirosis is a leading cause of anterior uveitis (9.7%), which has not been reported from any other part of the country. Increased availability of diagnostic testing and introduction of new treatment options have also changed the patterns of the disease.

Noninfectious uveitis accounted for 26.19% (55 cases) of patients with uveitis in our series. Spondyloarthropathy (HLA B27+)-associated uveitis was the common cause of uveitis in our patients and similar in several Western countries.[26] In our series, 15.15% of patients ($n = 15$) with anterior uveitis were of HLA-B27-positive spondyloarthropathy. Anterior uveitis in the developed world is often associated with seronegative spondyloarthropathies (ankylosing spondylitis, reactive arthritis, Reiter syndrome, and psoriatic arthritis). In general patients with any type of uveitis, the prevalence of ankylosing spondylitis has been reported to be 15%. In cases when the patient presents with acute anterior uveitis, it rises to 30%–50%, and if the patient presents with acute anterior uveitis and is HLA-B27-positive, it rises to 84%–90%.[27]

Anterior uveitis is relatively less frequent in South Africa, Japan, Korea, and India, a fact associated with the low prevalence of the HLA-B27 haplotype in that population. On the other hand, in Japan, Korea, and Taiwan, relatively high ratios of anterior uveitis have been associated with Behçet (9%, 3%, and 18%, respectively).[28]

Both genetic and environmental factors may play a role in the variable prevalence and phenotypic expression of the disease in different populations.[29] There are studies that have compared the frequency and phenotypic expression of the disease between populations living in their home country and those immigrated to a different country. The prevalence of Behçet disease in Germany is at least 20-fold higher in inhabitants immigrated from Turkey than in Germans, but is much lower than in Turkish people living in their native country.[29]

Table 4: Etiological comparison of anterior, intermediate, posterior, and panuveitis with other Indian studies

Type of uveitis	Etiology	This study (Central India)	Singh and Gupta (North India) (n=1233)	Das and Bhattacharjee (North East India) (n=308)	Aratee and Vaidehi (Western India) (n=198)	Biswas et al (South India) (n=1273)
Anterior uveitis		99 (47.14%)	607 (49.23%)	145 (47.07%)	82 (41.4%)	500 (39.28%)
	Idiopathic	37 (37.37%)	372 (61.3%)	66 (45.51%)	44 (53.7%)	293 (58.60%)
	Specific	62 (62.62%)	235 (38.71%)	79 (54.49%)	38 (46.34%)	207 (41.4%)
	Spondyloarthropathy (seronegative/HLA B27+)	15 (15.15%)	80 (13.2%)	34 (23.44%)	24 (29.3%)	43 (8.6%)
	Fuch's heterochromiccyclitis	3 (3.03%)	31 (5.1%)	7 (4.82%)	1 (1.2%)	28 (5.6%)
	JIA	4 (4.04%)	20 (3.3%)	-	1 (1.2%)	10 (2%)
	Herpes-related	18 (18.18%)	-	1 (0.6%)	-	6 (1.2%)
	Rheumatoid arthritis	1 (1.01%)	-	-	-	-
	Leprosy	2 (2.02%)	5 (0.8%)	1 (0.6%)	1 (1.2%)	3 (0.6%)
	Traumatic	8 (8.08%)	-	25 (17.24%)	3 (3.7%)	17 (3.4%)
	Tuberculosis	5 (5.05%)	48 (7.9%)	-	4 (4.9%)	3 (0.6%)
	Posner-Schlossman	1 (1.01%)	-	-	-	-
	Lens induced	5 (5.05%)	-	10 (6.89%)	-	44 (8.8%)
Intermediate uveitis		67 (31.90%)	198 (16.06%)	40 (12.98%)	33 (16.66%)	222 (17.44%)
	Idiopathic pars planitis	52 (77.61%)	181 (91.4%)	31 (77.5%)	23 (69.7%)	213 (95.9%)
	Specific	15 (22.38%)	17 (8.58%)	9 (22.5%)	10 (30.30%)	9 (4.05%)
	Tuberculosis	10 (14.92%)	8 (4%)	4 (10%)	8 (24.30%)	-
	Sarcoidosis	1 (1.49%)	-	5 (12.5%)	1 (3%)	-
	JIA-associated	2 (2.98%)	-	-	1 (3%)	-
	Toxoplasma	2 (2.98%)	-	-		
Posterior uveitis		27 (12.85%)	247 (20.23%)	92 (29.87%)	41 (20.7%)	366 (28.75%)
	Idiopathic	7 (25.92%)	61 (24.7%)	18 (19.56%)	13 (31.7%)	150 (40.98%)
	Specific	20 (74.07%)	-	74 (80.43%)	-	216 (59.01%)
	Multifocal chorioditis	5 (18.51%)	51 (20.7%)	4 (4.34%)	1 (2.4%)	-
	Serpiginous choroidopathy	4 (14.81%)	62 (25.1%)	14 (15.21%)	-	69 (18.85%)
	Toxoplasmosis	2 (7.4%)	20 (8.1%)	37 (40.21%)	8 (19.5%)	102 (27.87%)
	Tuberculosis	6 (22.22%)	22 (8.9%)	5 (5.43%)	8 (19.5%)	-
	Viral retinitis	3 (11.11%)	-	2 (2.17%)	2 (4.9%)	2 (0.55%)
	Toxocara	-	-	4 (4.34%)	-	21 (5.74%)
Pan uveitis		17 (8.09%)	181 (14.68%)	31 (10.06%)	42 (21.2%)	185 (14.53%)
	Idiopathic	5 (29.4%)	17 (9.4%)	10 (32.25%)	18 (42.9%)	95 (51.35%)
	Specific	12 (70.58%)	164 (90.6%)	21 (67.74%)	24 (57.14%)	90 (48.64%)
	Tuberculosis	4 (23.58%)	47 (26%)	-	9 (21.4%)	4 (2.16%)
	VKH	2 (11.76%)	44 (24.3%)	14 (45.16%)	6 (14.3%)	39 (21.08%)
	Behcet's disease	2 (11.76%)	-	1 (3.2%)	-	4 (2.16%)
	Sarcoidosis	1 (5.8%)	17 (9.4%)	9 (29.03%)	1 (2.4%)	21 (11.35%)
	Toxoplasmosis	2 (11.76%)	-	1 (3.2%)	-	-
	Sympathetic ophthalmia	1 (5.88%)	26 (14.4%)	1 (3.2%)	1 (2.4%)	10 (5.41%)

JIA: Juvenile idiopathic arthritis; VKH: Vogt kayanagi syndrome

Regarding the initial visual presentation among patients with different types of uveitis, those with anterior uveitis presented with better initial vision than did patients with other types of uveitis, which was also reported in a previous study in Austria.[30] Uveitis associated with HLA-B27 tends to affect the anterior chamber and has a relatively better visual prognosis than uveitis associated with other systemic diseases. The most important factor in determining visual outcome of uveitis cases is early diagnosis and prompt treatment.

The complications in uveitic eyes may occur due to the disease or its treatment. Although the numbers may vary depending on patient demography, disease state at presentation, and referral nature of a hospital, complications should be expected during management of uveitis despite best efforts. Cataract is a common complication of patients with uveitis either as a direct consequence of the disease process or as a sequel of long-term corticosteroid use. Difficulties start from the preoperative control of inflammation to intraoperative

problems such as poor visibility due to band keratopathy, small pupils, posterior synechiae, pupillary membranes, bleeding from abnormal iris vessels, and unusual anterior capsules. While patients with uveitis require special preparation and planning, appropriate patient selection, meticulous suppression of preoperative inflammation, careful surgical technique, and prompt management of complications can restore good vision.

Conclusion

Specific etiology of uveitis can be established in a majority of uveitis, except in the intermediate uveitis group where the cause is mostly idiopathic. TB and viral etiology were the most common forms of infective uveitis, whereas spondyloarthropathy and traumatic causes were the most common in the noninfective group of uveitis in our study from central India. Some degree of changing patterns are seen in the studies from the same country done at different periods of time, and the pattern is different in different parts of India, due to multiple factors such as genetic, geographical, racial, nutritional, socioeconomic differences, and environmental factors. Awareness of such regional difference is important in diagnosing disease entity and also the predictive value of diagnostic tests. Early detection and timely treatment are of great importance in uveitis to prevent visual impairment. Further investigation of the patterns and detailed etiologies of uveitis from different parts of India and world may be helpful in early identification of disease and treatment.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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