

Original article

Clinial Study of different types of Uveitis in Western Maharashtra

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Abstract:

Introduction: Uvea is a highly vascular layer that lines the sclera and its principal function is to provide nutrition to the eye. The present study was planned to study different types of uvelities in western Maharashtra.

Material & Methods: This study was conducted in Government Hospital Miraj during August 2005 to December 2006 to study different types of uveitis in relation with age, sex incidence, etiological factors & efficacy of treatment. Total 75 patients were considered for study. There were 58.6% male and 41.3% female. Maximum patients (33.33%) were between age group of 21-30 years. Patients of anterior uveitis(48%) were more .Leprosy was most common cause detected in specific diagnosis .In 12% patients of uveitis associated disease was tuberculosis . patients with good response with treatment were 69.33%

Conclusion: Incidence was found more in age groups of 20-50 years. It was found more common in male. In many cases (46.6%) cause was not detected. In remaining cases tuberculosis, leprosy, syphilis, ankylosing spondylitis, rheumatoid arthritis, HIV was associated.

Keywords: uvea , Uveitis

Introduction: Uvea is a highly vascular layer that lines the sclera and its principal function is to provide nutrition to the eye¹. Uveal tract consists of iris, ciliary body and choroid². Ciliary body is responsible for secretion of aqueous humor. Inflammation of this vascular coat of eye ball is known as uveitis .Causes of uveitis can be infection, allergy, trauma, toxins, collagen related diseases etc.

Uveitis can be classified on the basis of various factors. On anatomical basis it can be anterior, intermediate, posterior and panuveitis³. On clinical basis it may be classified into acute and chronic type. Pathologically it is nonsuppurative and suppurative

type³. Nonsuppurative is granulomatous and nongranulomatous. Symptoms of uveitis are pain, redness , photophobia,lacrimination and defective vision while signs are lid edema, circumcorneal congestion, corneal edema, keratic precipitates.³ Complications and sequel of uveitis are complicated cataract, secondary glaucoma, cystoid macular edema, and pappilitis. Different diseases where uveitis is noted associated with tuberculosis, syphilis, sarcoidis, ankylosing spondylosis, toxoplasmosis, AIDS etc.With this background in mind the present study was planned to study different types of uvelities in western Maharashtra in India.

Material and methods: The present study was conducted in Department of ophthalmology, Government Hospital Miraj during August 2005 to December 2006. Total 75 patients were selected for the study. All patients were clinically examined, thoroughly investigated and followed subsequently. Diagnosis of uveitis was based on clinical ocular manifestation. In acute cases there was lid oedema, circumcorneal congestion, change in color and pattern of iris, constricted sluggishly reacting pupil and presence of posterior synechia. On funduscopy there was vitreous haze or choroiditis,

Slit lamp examination showed aqueous flare & keratic precipitate. In chronic cases there was ciliary tenderness, altered color pattern of iris, irregular pupil with sluggish reaction, posterior synechia. Slit lamp examination showed flare and kps. On fundus examination there was old patch of choroiditis. Lab investigations were done HB%, ESR, CBC, BUL, Sr.creatine, R.A.Factor, VDRL, HIV, X-ray chest & S.I. Joint, Mantoux test. Some investigations like ANA, FTA-ABS were done outside this hospital. Patients were treated with steroid, Atropine and specific treatment.

Observations & Results:

Table 1) Showing distribution of cases according to age & sex:

Age group (in yrs)	Number of Patients			% of Total
	Male	Female	Total	
0-10	-	1	1	1.33%
11-20	2	2	4	5.33%
21-30	16	9	25	33.33%
31-40	10	7	17	22.66%
41-50	10	7	17	22.66%
51-60	3	4	7	9.32%
>60	3	1	4	5.33%
Total	44	31	75	100 %

Table 2) showing anatomical Distribution of Uveitis :

Type of uveitis	No of patients	% of total patients
Anterior	36	48
Intermediate	6	8
Posterior	18	24
Panuveitis	15	20
Total	75	100

Table 3) Showing systemic Association /etiology in anterior , posterior and panuveitis :

Systemic association or specific diagnosis	No of patients			
	Anterior Uveitis	posterior	Panuveitis	Intermediate
Idiopathic	20(55.55%)	03(16.66%)	06(40%)	6(100%)
Ankylosing Spondylosis	02(5.55%)	-	-	-
Rheumatoid Arthritis	02(5.55%)	-	-	-
Tuberculosis	02(5.55%)	04(22.22%)	03(20%)	-
Syphilis	01(2.77%)	-	02(13.33%)	-
Leprosy	04(11.11%)	02(11.11%)	-	-
HZV	0	02(11.11%)	01(6.66%)	-
CMV	01(2.77%)	02(11.11%)	-	-
Toxoplasmosis	0	02(11.11%)	2(13.33%)	-
Trauma	03(8.32%)	-	-	-
HSV	01(2.7%)	-	-	-
Multifocal coroiditis	0	02(11.11%)	-	-
HIV	-	1(5.5%)	01(6.66%)	-
Total	36(100%)	18(100%)	15(100%)	6(100%)

In our study out of 75 patients 44(58.6%) were male and 31(41.3%) were female. Maximum patients 25(33.33%) were in the age group of (21-30) years while there was single patient below age of 10 years. There were 04(5.33%) patients in age group of (11-20) years and above 60 years. There were 17(22.66%) patients in age group of (31-40) years and (41-50) years. There were 7(9.32%) patients in age group of (51-60) years. In relation to anatomical distribution maximum patients [36(48%)] were of anterior uveitis and minimum [06(8%)] were of intermediate type. Patients having posterior uveitis were 18(24%) and Specific diagnosis could be made in 16(44.44%) patients. Leprosy was most common cause detected in 4(11.1%) patients. Trauma was present in 3(8.32%), ankylosing spondylitis and rheumatoid arthritis as well as tuberculosis in 2(5.55%) patient. In relation with systemic

associations 9 (12%) patients of uveitis had association with tuberculosis as either a past infection or a freshly diagnosed pulmonary or extra pulmonary focus. All patients were treated with steroid & atropine. Maximum 52(69.33%) patients responded well to treatment.

Discussion: The incidence of uveitis among the patients attending the ophthalmic O.P.D. over a period of 1 year was 1.05% . Tschabitscher et al believe and Quote others to the same effect that normal incidence of uveitis is about 1.5% .⁴ Uveitis is rare in children .Few comprehensive statics are available, but the proportion of patients below 16 years of age affected by uveitis is between 2 to 5%(Beloved 1941⁵, Kimura et al1954⁶) .Perhaps the factor of hypersensitivity, which plays important role in this disease does not develop until the individual has been exposed to the sensitizing agent for many

years, alternatively the immunological mechanisms are modified in years of active growth by hormonal influences .(Duke Elder⁷)

In this study the incidence of uveitis in children was 6.66% . In this study majority of the cases occurred between the age group of (20-50)years (78.5%). Iridocyclitis in old age after 60 years becomes less common (5.33%). Acute uveitis is more common in men, whereas chronic anterior and generalized uveitis in women (Marchesanl 1949⁸ , Vesterdal 1951⁹). In this study incidence was more (58.6%) in male. The greater attendance of male patients in O.P.D. and increased exposure of males to trauma may have contributed to this high incidence.

In relation to etiology, in 12% cases tuberculosis was cause for uveitis . In 1949 H.Muller¹⁰ found tuberculosis as etiology in 20% cases. SRK Malik¹¹ found tuberculosis as cause in 44.2% cases out of 258 cases.

In this study in 08% cases leprosy was etiological factor for uveitis . P. A . Lamba¹² et al found 14.6% cases out of 325 cases of leprosy to have Uveitis .Following trauma, uveitis frequently occurs without element of bacterial infection and is particularly common where some structure such as iris or lens is incarcerated in wound. It is also probably due to hypersensitivity to either lenticular ,uveal or pigmentry protein . The irritative factors are derived from some necrotic tissues due to contusion and fibrotic reaction of healing , the reaction often being intensified by the presence of hemorrhage in the globe (Duke-Elder⁷) Arla Genstler , Dale Henderly and Ronald Smith¹³(1987) found 0.8% of traumatic cases in 600 cases of uveitis , In this study the

incidence of uveitis was 4% . A higher incidence was seen in males due to their greater exposure to injury. Body's vascular and neural functions are closely related ¹⁴. Syphilis is also one of the cause for uveitis . In this study in 4% cases of uveitis syphilis was etiological factor .Perkins (1961¹⁵) found 1-2% of his uveitis patients had syphilis. Diagnosis was made on history, VDRL ,fundus picture of disseminated chorioretinitis .

In this study rheumatoid arthritis was etiological factor in 2.66% cases. H.Muller¹⁰ (1949) found uveitis in 16% cases of rheumatoid arthritis. In some cases cause could not found. In this study in 46.66% cause could not detected .Von Alert found 25.5% cases to be idiopathic. In Perkins¹⁵ study (1956-60)31.4% were idiopathic. S.R.Malik¹¹ found 23.3% cases were idiopathic. Presently we have followed the treatment on the lines advised by Duke Elder⁷ with steroids, atropine and specific treatment proved effective in 69.33% eyes with subsidence of inflammation & improvement of visual acuity.

Conclusion: Incidence was more in age group of (20-50) years. It was found more common in male. In many cases (46.6%) cause was not detected. In remaining cases tuberculosis, leprosy, syphilis, ankylosing spondylitis, rheumatoid arthritis, HIV was associated. Uveitis can have recurrence and can become chronic. Chronic Uveitis has many complications and can lead to reduced vision, hence early diagnosis and treatment is necessary.

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