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RESEARCH ARTICLE

CLINICAL PROFILE OF PATIENTS OF EPISCLERITIS - A HOSPITAL BASED STUDY, JHANSI

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Abstract

Purpose: To determine the clinical profile of patients of Episcleritis presenting to our tertiary care hospital.

Methods: This was a hospital based observational study that included 100 participants presented at the Outpatient Department of ophthalmology in our hospital with various complaints and who were diagnosed as having episcleritis. After taking written consent from the patients, all the relevant information of the cases and detailed clinical history was taken. All the standard ocular and systemic examination was performed for every patient. The diagnosis of episcleritis was made based on the slit lamp examination findings. Frequency and proportions were used in the descriptive analysis for categorical variables. The data was processed, the coding and calculation was done using MS Excel office version 2021.

Results: Age of patients in our study ranged from 18 to 60 years. Maximum cases (42%) of episcleritis were in the age group of 41 to 50 years. There was male predominance (52%) in our study with majority of cases being males. Most common presenting symptom seen was redness in 89% patients, followed by ocular pain in 64%, followed by watering in 56%, discomfort in the eyes in 48% patients and other symptoms seen were burning sensation in the eyes, foreign body sensation and photophobia in 37%, 28%, and 12% cases respectively.

Conclusion: We can infer from our study that Episcleritis is a common, acute and self-limiting disease. Cases of Episcleritis were found more commonly in the age group between 41 to 50 years and in males in our study. Careful examination of the eye with slit lamp along with history taking in detail is helpful in diagnosing the cases of episcleritis.

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Introduction:-

A thin, loose layer of connective tissue that lies between the conjunctive and sclera, deep to the Tenon capsule and superficial to the sclera, can become inflamed in a condition known as episcleritis.^[1] Episcleritis and scleritis have been conflated since its early descriptions. Under one in a thousand is the incidence of the disease.^[2] It is more prevalent in women and those in their 40s and 50s. Most cases are idiopathic, however they can also be triggered by external stressors or connected to connective tissue problems. It typically manifests as a mild, self-limiting disorder.^[3]

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Etiology

The majority of episcleritis cases are idiopathic, while 26% to 36% of patients have a systemic illness that contributes to the pathological process and progression of episcleritis. These illnesses include Wegener granulomatosis, which was formerly known as Crohn disease, ulcerative colitis, psoriatic arthritis, systemic lupus erythematosus, reactive arthritis, relapsing polychondritis, ankylosing spondylitis, polyarteritis nodosa, Behcet disease, and Cogan syndrome.

Although they are much less frequent than the autoimmune disorders and collagen vascular diseases mentioned above, some infections like Lyme disease, cat scratch fever disease, syphilis, and those brought on by the herpes virus are also connected to Episcleritis.^[1,2,4-6]

Pathophysiology

Non-granulomatous inflammation of the episclera's superficial vascular network, which results in vascular dilatation and perivascular infiltration, is the proposed pathogenesis^[1]. Simple and nodular episcleritis were categorized by Watson and Hayreh. Intense but non-raised engorgement of the subconjunctival arteries affecting one or more quadrants of one or both eyes is the hallmark of simple episcleritis. It occurs 70% more frequently than the nodular type (30%). In contrast, in nodular episcleritis, a localized, moveable, sensitive swelling is surrounded by a severe engorgement of the episcleral blood vessels.^[2]

Most patients experience sporadic episodes of moderate to severe inflammation that last 7 to 10 days, on and off at intervals of 1-3 months, and are significantly more frequent in the spring and fall than in the summer or winter.^[7] The nodular type is typically more painful and recurring.^[8]

Signs And Symptoms

There are no documented diagnostic criteria for episcleritis, and the diagnosis is primarily made clinically. Usually, vision is not affected. Other diagnosis should be taken into consideration if there is vision impairment or severe pain. Between the superficial dilated blood vessels, white sclera is seen. Examinable tenderness typically indicates scleritis rather than episcleritis.

Scleritis typically does not develop from episcleritis. The only exception is ocular herpes zoster, which can reoccur at the same site as scleritis several months after initially appearing as a self-resolving episcleritis during the vesicular stage of the disease.^[9]

Episcleritis typically manifests as an abrupt onset of redness, lacrimation, and photophobia. While scleritis is extremely unpleasant, it is generally mild with only some eye irritation. In contrast to scleritis, which may affect multiple quadrants of the eye, episcleritis often only affects one. (Figure 1). A systemic illness may be present if there is bilateral involvement.^[7] Additional symptoms, such as those of rheumatoid arthritis, scleroderma, systemic lupus erythematosus, and dermatomyositis, may aid in the diagnosis.

Material and Methods:-

This was a hospital based observational study that involved 100 patients presented to the outpatient department of Ophthalmology of our institute. Patients were diagnosed as having Episcleritis were included in the study after they gave written and informed consent during the period from 1st March 2022 to 30 July 2022. Study was performed under the guidelines given by Helsinki Declaration of 1975, as revised in 2000. The necessary permission from the Ethical and Research Committee was obtained before initiating the study. Demographic and the detailed history was taken from each patient included in the study. Every patient went through general physical and systemic examination. All patients were subjected to complete ophthalmic examination in diffuse and focal light and slit lamp examination. The diagnosis of episcleritis was based on clinical examination and slit lamp examination. Data was written down and collected in a pre-designed and pre tested questionnaire which had all the relevant questions regarding the study. Frequencies and percentages were used for the categorical data and MS Excel office version 2021 was used for coding and calculation. Bar graphs and pie charts were used for visual depiction of the data.

Inclusion criteria

- All patients between the age group 18 years to 70 years who presented to the OPD of Ophthalmology department and diagnosed with Episcleritis.

Exclusion Criteria

1. Patients outside the age group of 18 to 70 years.
2. Patients with any corneal pathology.
3. Patients with other conjunctival diseases.
4. Patients with recent intraocular surgery.
5. Patients with the history of trauma.
6. Patients with any other ocular pathology.
7. Mentally or physically unfit patients.

Results:-

A total of 100 patients of Episcleritis were studied. The age ranged in our study from 18 to 70 years. Maximum patients were in the age group of 41 to 50 years i.e., 42 percent, while minimum (6%) falling in the age group of 61 to 70 years (Table 1) (Figure 2). Cases in our study were predominantly males comprising 58 percent of the study participants while rest (42%) were females (Table 2) (Figure 3). Symptoms were present for more than two weeks in 68% of the patients while in rest history of duration onset symptoms were more than two weeks (Table 3). In 86% of the patients this was the first episode of episcleritis they experienced and for 14% gave history of having the bout of episcleritis previously as well (Table 4). Majority cases were unilateral (78%) in presentation (Table 5). On examination it was revealed that in all patients episcleritis involved only single quadrant. Inflammation was present in temporal quadrant while in 27% it was limited to the nasal (Table 6). All cases in our study showed features which are commonly encountered in cases of episcleritis like redness in 89% followed by pain in 64% and watering in 56% cases (Table 7). Other noteworthy symptoms were discomfort in 48%, burning sensation in 37%, foreign body sensation in 28% and photophobia seen in 12% of the participants. From study participants 32% received advice on cold compression and antibiotic eyedrops and in rest 68% along with these treatment modalities a weak steroid was also prescribed based on the severity of the disease (Table 8).

Discussion:-

Episcleritis is an inflammatory condition affecting loose highly vascular connective tissue lying over sclera found predominantly in middle age groups, commonly in females. It is classified into two types – diffuse and nodular episcleritis. It is characterized by diffuse or sectoral conjunctival congestion mostly on the temporal side of eye, mild to moderate pain, lacrimation, burning sensation, foreign body sensation and rarely photophobia. Episcleritis is usually considered to be a middle age group disease and it has several treatment options. The age group considered in our study was from 18 to 70 years. Maximum patients were in the age group of 41 to 50 years while minimum falling in the age group of 61 to 70 years. Our study comprised of a greater number of males as compared to females. In a study done by Jabs et al., mean age of onset of episcleritis was 45 years with a range of 9–71 years. Majority cases in our study were with unilateral presentation. They noted a female preponderance in their study. In his study Watson et al., found that episcleritis occurred in 36.5% of cases. The major symptoms seen in the cases of Episcleritis in our study were Redness and pain. Majority cases presented to us within two weeks starting of the symptoms. This corroborates the fact that episcleritis is an acute onset disease. Other symptoms found were watering, discomfort, burning sensation, foreign body sensation and photophobia. All patients were advised in the study for cold compression and majority patients in our study were treated with weak antibiotic eye drops only few requiring steroid medications. This is in line with the fact that disease is a benign and self-limiting disease.

Conclusion:-

Our study suggests that episcleritis is a common, acute, and self-limiting condition. In our study, cases of episcleritis were more frequently detected in men and individuals between the ages of 41 and 50. Episcleritis cases can be accurately diagnosed with a thorough slit lamp examination of the eye and a comprehensive investigation of the patient's medical history.

Table 1:- Age distribution in patients of episcleritis (N=100).

Age Group (in years)	Number of Patients (%)
18-30	10(10)
31-40	35(35)
41-50	42(42)
51-60	7(7)

61-70	6(6)
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Table 2:- Gender distribution in patients of episcleritis (N=100).

Gender	Number of patients (%)
Male	58(58)
Female	42(42)

Table 3:- Duration of Symptoms in Study Participants(N=100).

Duration	Number of patients(%)
< 2 weeks	68(68)
>2 weeks	32(32)

Table 4:- Number of recurrences in the past of Episcleritis (N=100).

Previous Episodes (if any)	Number of Patients(%)
Yes	14(14)
No	86(86)

Table 5:- Status of laterality in cases of Episcleritis (N=100).

Laterality	Number of patients(%)
Unilateral	78(78)
Bi- Lateral	12(12)

Table 6:- Quadrant Involved in Episcleritis cases (N=100).

Quadrant	Number of patients (%)
Temporal	73(73)
Nasal	27(27)
Superior	0(0)
Inferior	0(0)

Table 7:- Presentation in patients of Episcleritis.

Presentation*	Number of patients (%)
Redness	89(89)
Ocular Pain	64(64)
Watering	56(56)
Discomfort	48(48)
Burning sensation	37(37)
Foreign body sensation	28(28)
Photophobia	12(12)

*Not Mutually Exclusive

Table 8:- Treatment Given to Episcleritis cases.

Treatment	Number of patients (%)
Only cold compresses & antibiotics Eyedrops	32(32)
(Antibiotic+Weak steroid) Combination Eyedrop with cold compresses	68(68)

Figure 1:- Showing Congestion in a case of Episcleritis.

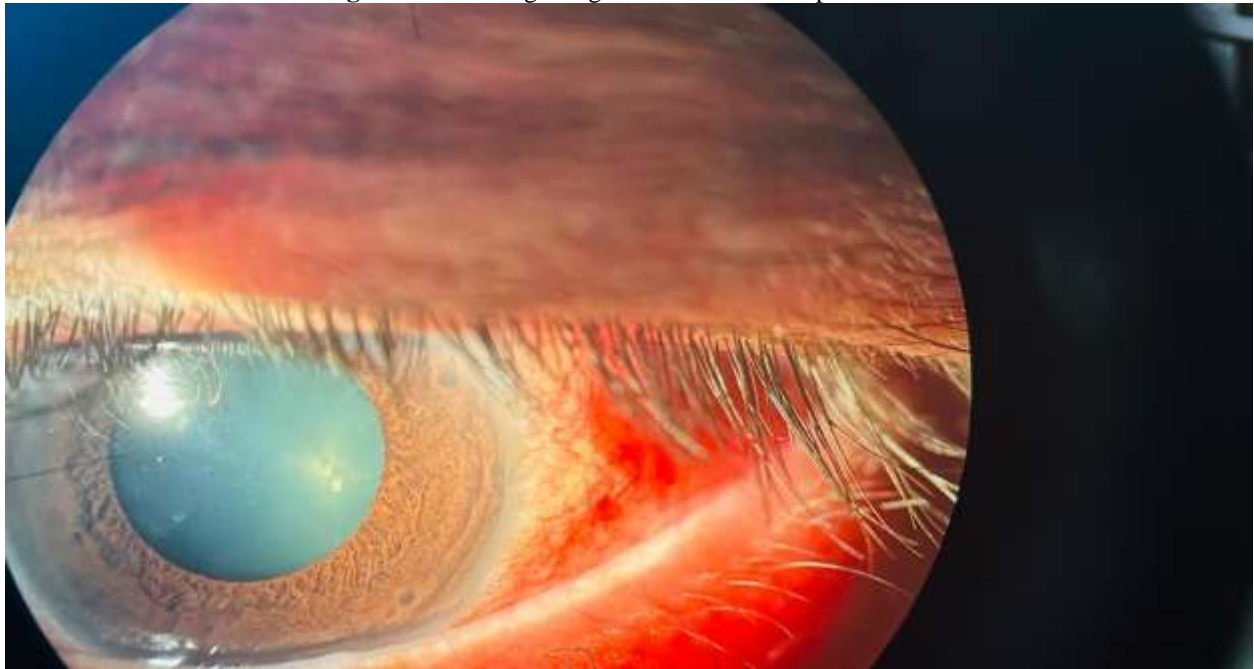


Figure 2:- Bar graph depicting Age wise distribution of Episcleritis Cases in the Study (N=100).

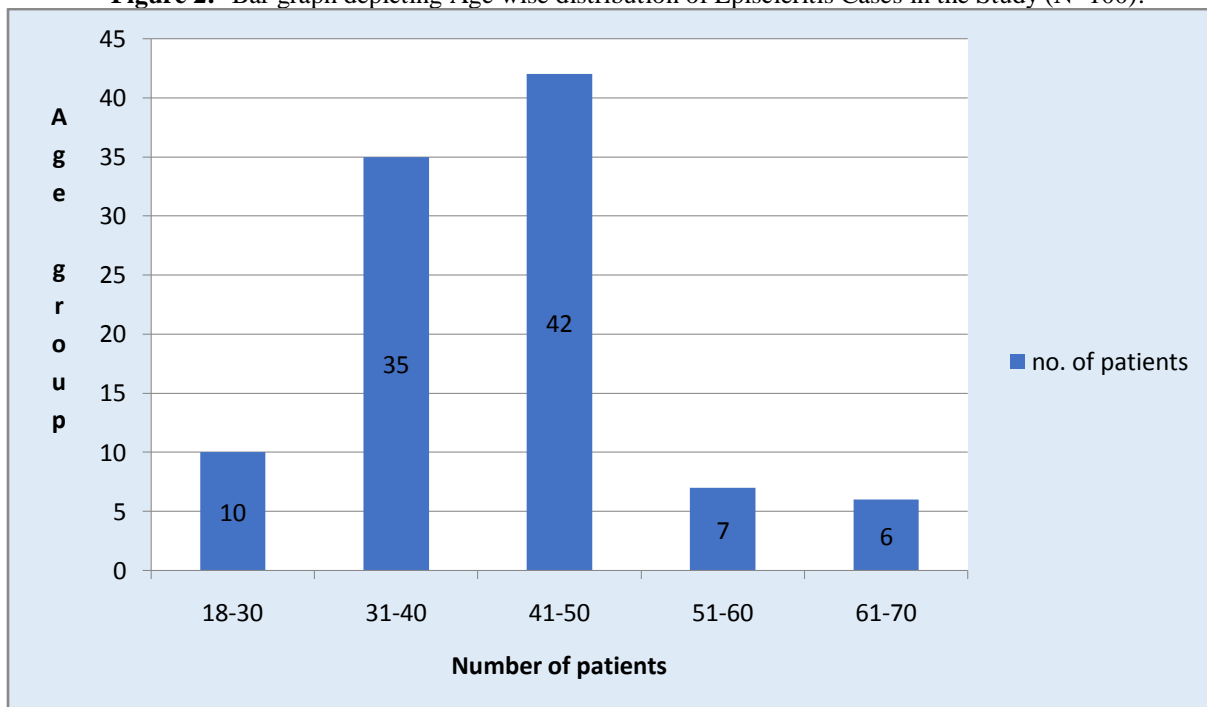
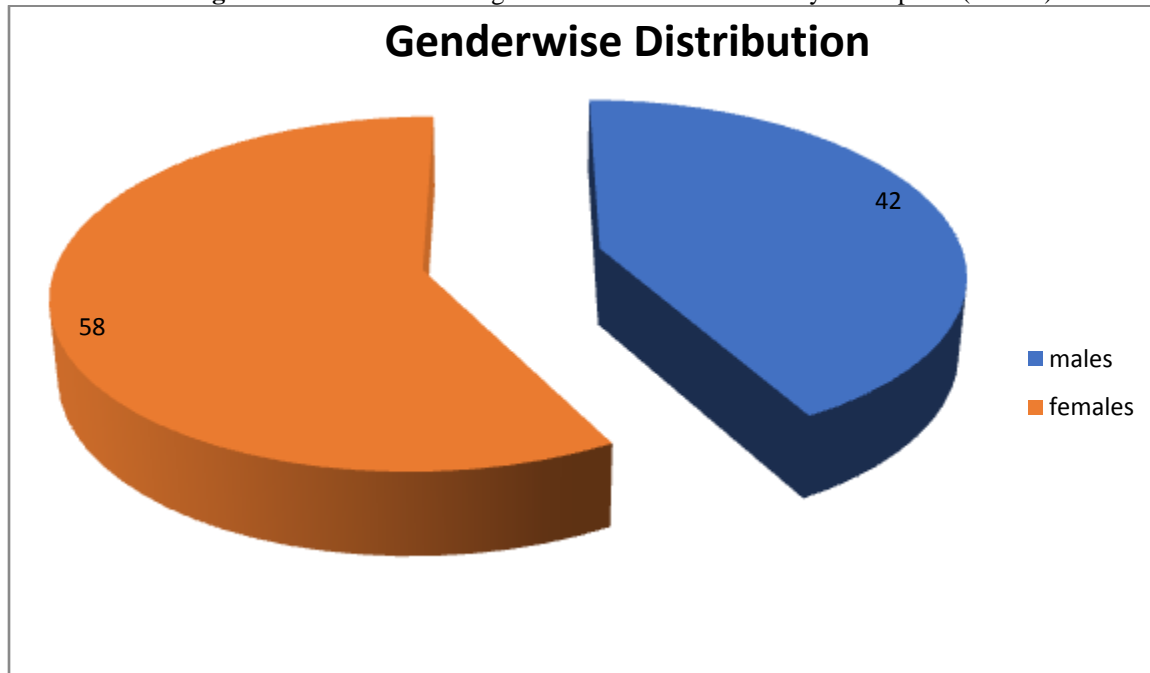


Figure 3:- Pie Chart showing Gender Distribution in Study Participants (N=100).**References:-**

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