ANALYSIS OF PRESENILE CATARACT RISK FACTOR AND TYPE OF CATARACT

INTRODUCTION - Cataract is the formation of opacity of the crystalline lens. Cataract is major cause of blindness worldwide. In India, almost 80% of blindness is attributed to cataract and there is a high prevalence of lens opacities. These usually are caused by degenerative changes in the lens often occurring after the age of 50 years. Age related cataract is a multifactorial disease and different risk factors play a role in different types of cataract formation. Age is still the single most important risk factor for cataract. Pre senile cataract by definition is the occurrence of cataracts before the age of 50 years. Recently the incidence of early onset cataract is on the rise. This will definitely add on to the currently existing burden of age related cataract.

MATERIAL AND METHODS - Design of study was prospective observational study. Patient attending in outreach camp of ophthalmology department were in this study who found presenile cataract. They were undergone a complete ocular examination and proper history taking. The type of cataract and cause of cataract formation identified and documented and analysed using all information.

RESULT - 200 eyes were examine and include in this study most common cataract we found in our study was nuclear cataract. The common cause we identified were sunlight exposure, steroid use, trauma and most of them idiopathic in nature.

CONCLUSION - Presenile cataract increases because of life style and we found more due to outreach camps by doing proper protection from sunlight, less steroid use, diabetic screening camps we can prevent formation of presenile cataract.

KEYWORDS:
Presenile cataract, Type of cataract, Risk factor

ABSTRACT
Cataract is the formation of opacity of the crystalline lens. Cataract is major cause of blindness worldwide. In India, almost 80% of blindness is attributed to cataract and there is a high prevalence of lens opacities. These usually are caused by degenerative changes in the lens often occurring after the age of 50 years. Age related cataract is a multifactorial disease and different risk factors play a role in different types of cataract formation. Age is still the single most important risk factor for cataract. Pre senile cataract by definition is the occurrence of cataracts before the age of 50 years. Recently the incidence of early onset cataract is on the rise. This will definitely add on to the currently existing burden of age related cataract. Few studies have been undertaken to explore risk factors for presenile cataract and they indicate that nearly 50% of the participants were exposed to at least one known risk factor including trauma, intraocular inflammation, diabetes mellitus, and the use of steroids. Active smoking, alcohol use, severe malnutrition, ultraviolet β-radiations (290 nm to 320 nm), severe diarrhea causing dehydration is among other risk factors for cataract formation. Patients in whom none of the risk factors were observed were placed into a separate group called the susceptible for cataract development. Patients in whom none of the risk factors were observed were placed into a separate group called the idiopathic category. Patient also categorized on the basis of alcohol intake and type of diet vegetarian or nonvegetarian.

STASTICAL ANALYSIS
RESULTS - From march2016 to fab 2017 total 200 patients were analysis having presenile cataract attending at sankara eye hospital, mogar, gujrat. Data obtained were as follows-

Table 2-Age distribution

\[
\begin{array}{lcc}
\text{AGE GROUP} & \text{NO.} & \% \\
30-35 & 25 & 12.5 \\
36-40 & 44 & 22.0 \\
41-45 & 63 & 31.5 \\
46-50 & 68 & 34.0 \\
\end{array}
\]

Table 3- vision distribution

The present study conducted to analyze various risk factor and types of cataract in presenile cataract in 30 to 50 year age group. the study was undertaken at sankara eye hospital, mogar, gujrat, india between february 2016 to february 2017.

MATRICAL AND METHODS - This is a prospective observational Hospital based study conducted at sankara eye hospital, mogar, gujrat, india. Patients of either gender presenting with cataract aged between 30-50 years either unilateral or bilateral were included. Patients who had congenital or developmental cataracts were excluded from the study. Informed consent was obtained from all participants. All the patients selected were requested to fill up a questionnaire consisting of their age which was confirmed with one of their identity proof, occupation and the amount of sunlight exposure per day, personal habitual addictions to tobacco and alcohol, dietary pattern, history of any systemic disorders like Diabetes mellitus, hypertension, tuberculosis, skin diseases, asthma, or any other diseases for which the patient is on long term drug therapy, any significant ocular trauma, use of any long term topical or any associated ocular disease patients were examined using slit lamp examination. of fundus done by 90D. The criteria for selection of high myopic patients in this study were axial length of 26 mm or more and axial length was determined by using A-scab. Diabetes was diagnosed based on the medical history of the patient and verified against the physician's treatment records all patients were tested for random blood sugar. Steroid intake was classified as oral, inhaled, injectable, or topical used for at least 3-4 months. Participants were categorized as having significant sunlight exposure if their occupation meant they spent more than 8 hours a day outdoors for more than 5 days in a week. On ocular disease history includes only chronic uveitis and coloboma which are more susceptible for cataract development. Patients in whom none of the risk factors were observed were placed into a separate group called the idiopathic category. Patient also categorized on the basis of alcohol intake and type of diet vegetarian or nonvegetarian.

<table>
<thead>
<tr>
<th>GENDER</th>
<th>NO.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>male</td>
<td>99</td>
<td>49.5</td>
</tr>
<tr>
<td>female</td>
<td>101</td>
<td>50.5</td>
</tr>
</tbody>
</table>

Tables showing different distribution of datas.
studies suggests that it is wise to consume diets rich in vitamin C, E and role to play in the prevention of cataract formation, but epidemiologic have been shown to lower the risk of cataracts. But some studies say it is.

containing antioxidants like vitamin C and E, lutein, and zeaxanthin cataract. Diet either non-vegetarian or vegetarian doesn’t much affect smoking and drank heavily had an increased prevalence of nuclear cataract. Alcohol intake alone is not a major risk factor for cataract, Trauma is common cause of cataract formation in young age because of more outdoor activity by young people. The change in the direction of the ocular trauma associations for cataract results largely from the strong confounding effects of age and sex on the unadjusted associations (that is, ocular trauma was more frequent in younger people and men, but cataract was more frequent in older people and women

In present study most patients had idiopathic nature for early cataract development. This shows how a day’s patients came in highlighted because of proper screening and camps, usually PSC component is common in presenile cataract due to steroid uses, which was similar to the observations made in other, in our study most of the patients worked outdoor activity, which predisposed to UV light. Lens opacification has been linked to ocular exposure to UV radiation, particularly UV B. Few authors found a positive correlation between cataract prevalence and duration of sunlight exposure studies. Diabetes also a common risk factor now a days because of increasing diabetes due to life style and junk food. relation between both shown is study.

Risk factor for the development of cataracts in young patients. High myopia is also a risk factor for cataract formation. Recently, Praveen et al. reported that high myopia was a powerful. Similar findings have been reported from Taiwan where an AXL of >27 mm was associated with an increased risk of cataract in individuals below 45 years.

Trauma is common cause of cataract formation in young age because of more outdoor activity by young people. The change in the direction of the ocular trauma associations for cataract results largely from the strong confounding effects of age and sex on the unadjusted associations (that is, ocular trauma was more frequent in younger people and men, but cataract was more frequent in older people and women).

Ocular disease like uveitis and coloboma associated with early onset of cataract. Cataract is a common complication of uveitis and results from chronic intraocular inflammation and corticosteroid use in treating the inflammation. The incidence of cataract in uveitis varies from 57.0% in pars planitis to 78% in Fuchs heterochromic iridocyclitis (FHI)

Some amount of Alcohol intake alone is not a major risk factor in. He only adverse effect of alcohol was among smokers; people who smoked and drank heavily had an increased prevalence of nuclear cataract. Diet either non-vegetarian or vegetarian not much affects development of early onset of cataract, proper supplements of Foods containing antioxidants like vitamin C and E, lutein, and zeaxanthin have been shown to lower the risk of cataracts, but some studies says it is not yet possible to confirm that antioxidants in the diet have a major role to play in the prevention of cataract formation, but epidemiologic studies suggests that it is wise to consume diets rich in vitamin C, E and

REFERENCES-