



# Clinical Study of The Causes of Visual Disability Approaching to The Tertiary Eye Care Hospital of The Sangli District

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### KEYWORDS :

**Aim**

To determine the causes & the magnitude of visual disability in patients approaching to civil hospital for visual disability certificate.

**Introduction –**

Eye is the most precious of our sense organ.Hence visual disability serves a major blow to the progress of the individual,society& nation. Detection of avoidable causes of blindness,so that we can start the best possible treatment to avoid further vision loss & also can arrest the blindness in the future generations.

Prevention of visual impairment is an international priority & its planning requires contemporary data regarding incidence & causes based on which priorities can be identified.

**Materials & Methods**

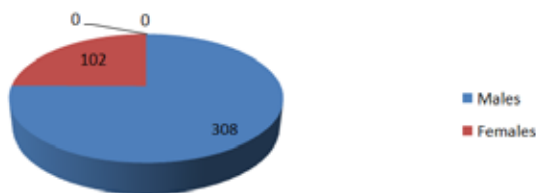
A cross-sectional record base study of 410 individuals coming for visual disability certificates at the eye OPD of civil hospital from May 2012 to April 2013.Patients were subjected to detailed history taking,visual acuity assessment on Snellen'schart,slit lamp examination of the anterior segment & the posterior segment examination no direct/indirect ophthalmoscope/+90 D.The best corrected V/A was ascertained & the value recorded.If the V/A could not be measured,we used the following test's sequentially -counting fingers,hand movements & light perception. Automated threshold visual field test using SITA standard 30-2 programme on Humphery perimeter was done in indicated patients. The exact cause & the percentage of visual disability were determined in accordance with the WHO- criteria for visual disability.

Univariate analysis for sex,age group,% of disability,causes of disability,avoidable causes & H/O consanguinous marriage in parents was carried out using Chi-square test. Significance was assessed at the P<0.05 (5%) level for all the paramaters.

**Results**

Total 410 patients,out of which 308 were males(75.12%), & 102 were females(24.88%).

**Male:Female ratio**



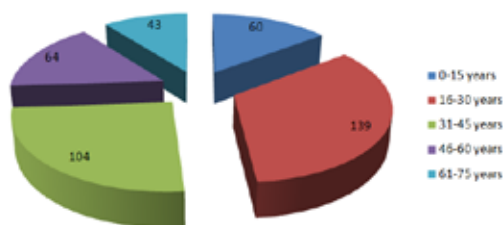
**Categories of visual disability –**

According to the guidelines for various disabilities by the Gazette of india, following are the criterias for the % of visual disabilities.

BCVA in better eye	BCVA in worse eye	% of disability
6/9-6/18	6/24-6/36	20%
6/18-6/36	6/60-nil	40%
6/60-4/60 or field of vision 10-20 degrees	3/60- nil	75%
4/60-1/60 or field of vision 10 degrees	FC- 1 feet -- nil	100%
6/6	FC- 1 feet -- nil	30%

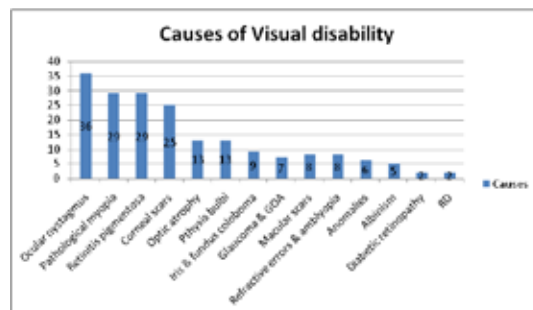
Majority of 139 (33.90%) patients belonged to the age group of 16-30 years followed by 104(25.36%) patients were among the 31-45 years of age & 60 patients(14.68%) were below the 15 years of age. Majority of the patients were in the productive age group.

**Comparison of age groups**



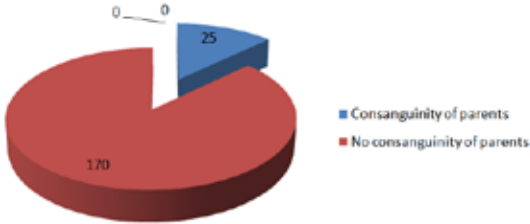
Out of all the patients with visual disability,onlythe patients with > 40% visual disability will get the benefit of handicapped persons by the law of Indian Government.Among that(>40% visual disability) ocular nystagmus& the consequent amblyopia(18.46%) was the main cause of visual disability. 29 (14.87%) were with retinitis pigmentosa. 17 (8.71%) were with ocular developmental anomalies.

**Causes of Visual disability**



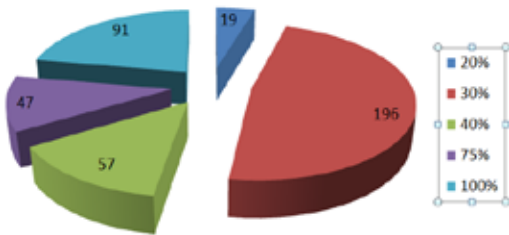
We found that among the 25 patients (12.82%) were with H/O consanguineous marriages among parents.

**H/O consanguinity of parents**



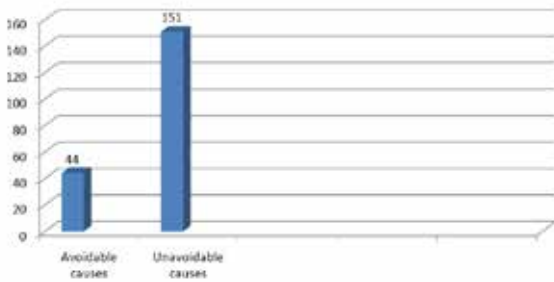
Maximum 196(47.80) patients with visual disability of 30% followed by 91(22.19%) with 100% visual disability.

**Magnitude of visual disability**



Out of 195 patients with visual disability >40% which were considered to be handicapped, in 44 patients we could avoid the visual loss that is the patients with avoidable blindness were 44 like amblyopia, glaucomatous damage & advanced diabetic retinopathy.

**Patients with avoidable causes of blindness**



	Current study, Maharashtra	Dadpeer et al, Karnataka	Ghos et al, West Bengal
Male:Female	3.01: 1	1.13:1	2.37:1
Commonest age group(Years)	16-30	40-65	11-20
Commonest causes	Amblyopia	Refractive errors & amblyopia	Congenital anomalies

By comparing above studies, we can say that commonest age affected is the productive age group. So the burden on the respective family & the Nation is much more. Also the males are affected more, so that we can say that the males are more prone for occupational hazards, accidents. Again the commonest cause is amblyopia, which comes under the avoidable cause.

**Conclusions**

Avoidable causes of blindness were seen in 44 (22.56%) among 195 patients with disability >40% which were due to lack of awareness & lack of timely treatment.

Also 25 patients(12.82%) were giving H/O consanguinity among parents. So by proper education in the general population, we can avoid the blindness in the future generations. So the prevalence of blindness will be definitely reduced.

Hence there is intense need to increase awareness & timely treatment can help us to reduce the burden of visually incapacitated.

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