



REVIEW ARTICLE ON PREVALENCE OF COMMON OCULAR MORBIDITIES IN DIFFERENT PARTS OF INDIA

KEYWORDS

ocular morbidities, prevalence, review article

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ABSTRACT

Some of the ocular morbid conditions are cataract, refractive errors, Xerophthalmia, Pterygium, strabismus, dacryocystitis, etc. The major reasons for the high prevalence of ocular morbidity in India are increasing life expectancy, significantly more people aged above 40 years, poor access to eye care facilities in rural areas, misconceptions about cataract surgery, compromised water quality and environmental conditions, and lack of effective eye health education program. Refractive error is one of the most common causes of visual impairment around the world and the second leading cause of treatable blindness. The frequency of eye diseases usually start increasing around 40 years of age, with an even steeper increase beginning around 60 years of age. Poor vision dramatically affects the child's performance in school and has a negative influence on his development and maturity. Periodic screening of school children is very essential to improve the quality of eye-sight. Health education should be imparted to community regarding healthy eye care practices, causes, preventive measures, and appropriate treatment of ocular morbid conditions, hygiene regarding eye, diet rich in vitamin A and vitamin A prophylaxis program (specially to the mothers of under-fives).

INTRODUCTION

Some of the ocular morbid conditions are cataract, refractive errors, Xerophthalmia, Pterygium, strabismus, dacryocystitis, etc. Although the data regarding the prevalence of ocular morbidity among rural inhabitants is scarce but there are many reasons for the prevalence. The major reasons for the high prevalence of ocular morbidity in India are increasing life expectancy, significantly more people aged above 40 years, poor access to eye care facilities in rural areas, misconceptions about cataract surgery, compromised water quality and environmental conditions, and lack of effective eye health education program (1,2). We know that 30% of India's blind lose their sight before the age of 20 years, thus there is importance of early detection and treatment of ocular morbidity and visual impairment in young children (4). Refractive error is one of the most common causes of visual impairment around the world and the second leading cause of treatable blindness (6). The frequency of eye diseases usually start increasing around 40 years of age, with an even steeper increase beginning around 60 years of age (8). Poor vision dramatically affects the child's performance in school and has a negative influence on his development and maturity.

REVIEW OF LITERATURE

A study in **Allahabad**(3) reported that cataract (41.89 %) was identified as the most common cause of ocular morbidity followed by refractive errors (21.59 %), xerophthalmia (10.20 %) and glaucoma (4.83 %). Ocular morbidity was highest (40.92 %) among those aged above 60 years of age and lowest (13.86 %) among those aged between 20-39 years. Ocular morbidity was found to be significantly higher among the illiterates (69.50 %) than the literate ones (30.50 %). Ocular morbidity was more among females (53.60 %) as compared to males (46.40 %). Ocular morbidity was highest in lower classes (42.86 %) and lowest in upper (2.79 %) classes.

In a study in **Maharashtra** in school children(5), the prevalence of ocular morbidities was found to be 27.65%. The commonest cause of ocular morbidity was refractive errors with a prevalence of 10.12% and conjunctivitis was 2.57%. The prevalence of trachoma was 0.8%.

Another study was carried out in **Nagpur**(7). It was found that refractive error was seen in (26.16%) and cataract in (4.87%) of study subjects. The prevalence of pterygium was (2.92%). The ocular morbid conditions were found to be significantly associated with females. It could be because most rural women tend to use cheap cooking fuels (e.g. dried wood, twigs and sticks, cow dung) which produce a lot of smoke. Prolonged exposure to this smoke (particularly in ill ventilated space) would serve as an additional and

cumulative source of oxidative damage to the eye. Thus, such cooking smoke could be a risk factor. Also, most of the women in rural were illiterates and were having low education level as compared with males.

Another cross-sectional study was conducted(9) in patients of rural areas of **Bundelkhand**. It was reported that the prevalence of ocular diseases among the elderly population was observed to be high. Each person above 60 years of age was susceptible to suffer from one or more ocular diseases. Ocular diseases were found to be more among males, people in the lower Socioeconomic strata, landless labourers and older age groups. The higher prevalence of ocular diseases in old age could be due to increasing degenerative conditions, increased susceptibility to infections, lack of proper care of the eyes, among other reasons.

The prevalence of pterygium was high. The prevalence of glaucoma was found to be (3.7%). Poor knowledge about ocular health and poor availability of eye health care services in this study might be a possible reason for a higher prevalence of corneal opacity.

Another study in **Nainital**(10), it was reported that the overall prevalence of ocular morbidity in school children of age 6-16 year age group was 23.3%. Refractive errors in this study were found to be 15.6%. Prevalence of colour blindness was found to be 2.4%. Prevalence of Vitamin A deficiency in this study was (1.1%). Conjunctivitis was found to 0.6%.

Another study(11) in rural parts of **Central India** revealed a significant prevalence of ocular morbidity among school going children 30.69%. Refractory errors were found to be most important and accounted for 50.53% of total ocular morbidity followed by Vitamin A deficiency which included Bitot's Spots (21.14%) and Conjunctival Xerosis (11.11%). It was also observed in this study that there is a relation of diet and socio-economic class with the prevalence of ocular morbidity. The causes like conjunctivitis resulted in 3.94% morbidity while Trachoma, a major cause of preventable blindness accounted for 0.7%. Squint was found to contribute 3.58%. Lid infections like Styel accounted for (3.58%) and Chalazion accounted for (2.86%).

A community based cross-sectional study(12) was conducted in the villages around of **Barabanki, Uttar Pradesh**. The overall prevalence of ocular morbidity was found to be 41.3%. Myopia was the most common ocular morbidity having a prevalence of 14.8% individuals, followed by cataract (14.3%) and hypermetropia (12.8%).

Allergic and infective conjunctivitis affected 5.8% and 3.9% people, respectively. Glaucoma and colour blindness were found to be in less than one percent of the population. The prevalence of ocular morbidity was higher among the subjects living in kuccha (45.8%) house than Pucca (41.3%) and Semi-pucca (39.6%). The prevalence of ocular morbidity was lower who had overcrowding (39.6%). Occupation of the subjects did not affect the prevalence of ocular morbidity in this study.

CONCLUSION

Prevention and treatment of ocular diseases by regular screening of students would definitely reduce ocular morbidity. Periodic screening of school children is very essential to improve the quality of eye-sight. Screening and early referral of population in need of specialized ophthalmic care should be emphasized. Campaigns regarding surgical correction for cataract, should be strengthened. Health education should be imparted to community regarding healthy eye care practices, causes, preventive measures, and appropriate treatment of ocular morbid conditions, hygiene regarding eye, diet rich in vitamin A and vitamin A prophylaxis program (specially to the mothers of under-fives).

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