



Prevalence of Lingnash W.R.T Post Traumatic Cataract among the Daily Wages Workers in Navi Mumbai

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ABSTRACT

Purpose: This study investigates distribution pattern & prevalence of traumatic cataract in daily wages workers in Navi Mumbai. As the daily wages workers are majorly illiterate & to meet with their daily necessity of human beings they have to work daily on the day wages without any skill & safety equipment or measurements. So they are very prone for frequent ocular injuries.

We aim to report the prevalence of traumatic cataract among the daily wage workers of Navi Mumbai.

Methods: A cross-sectional study was carried out among 600 daily wage workers with the mobile eye clinic under the Eye screening program of Prabhat Trust. Demographic data were entered by the respected worker with valid government id proof & Screening included {torch light examination, Vision taking, Refraction, Examination of Squint by cover & uncover test} by trained optometrist. The screening was conducted in various centres (Naka) of daily wage workers in 12 sub-division of Navi Mumbai, the worker (patient) who had lens opacification was later transferred for detailed examination with blood sugar level, blood pressure and a detailed history of the patient.

Results: The prevalence of cataract was 150 (25%) Among which corneal opacity was present in 48 (8%), followed by refractive error in 300(50%) and the remaining 102(17%) with other eye complications such as allergic conjunctivitis, style, chalazion, squint.

Prevalence of cataract among 150 patient (60%) 90 patient were of traumatic cataract this was diagnosed after a detailed eye examination and a history of the patient

Males had slightly higher traumatic cataract 62 (70%) than females 30(27 %).

Conclusion: The study provides useful and baseline data about the prevalence of traumatic cataract amongst the daily wage workers of Navi Mumbai. A larger study needs to be conducted in all the subdivisions of the state to get a clearer picture of traumatic cataract and other eye related diseases to detect vision problems as early as possible to provide the needful assessment to the labourers.

Timely intervention for eye examination plays an important role to protect these workers from becoming blind because once there is an injury it needs treatment as soon as possible. once cataract formed there is no medication nor any glasses that can improve their vision for a long time. Active screening and timely intervention will not only help in vision restoration but will also influence the awareness of health & continuous wages work to earn for livelihood.

KEYWORDS: Traumatic; Cataract; zonule; lens; squint; Prevalence; conjunctivitis; Refractive error; Opacification.

PURPOSE

This study investigated the distribution pattern & prevalence of traumatic cataract in daily wages workers in Navi Mumbai. As these workers are unskilled & illiterate, to meet their basic necessity they have to work on

the daily wages. Without any safety equipment they work in hazardous surroundings. If they were skilled they could not identify work related probable hazards. Although they were happily doing their work due to lack of awareness. Because Of these factors they are more prone to meet up with eye injuries, may their visual acuity get hampered & they can even turn blind. To avoid such incidents by creating awareness prevention may be the optimal approach for reducing corneal blindness. We aim to report the prevalence of traumatic cataract among the daily wage workers of Navi Mumbai.

METHODS

A cross-sectional study was carried out among 600 daily wage workers with the mobile eye clinic under the Eye screening program of Prabhat Trust. Demographic data were entered by the respected worker with valid government id proof & Screening included {torch light examination, Vision taking, Refraction, Examination of Squint by cover & uncover test} by trained optometrist. The screening was conducted in various centres (Naka) of daily wage workers in 12 sub-division of Navi Mumbai, the worker (patient) who had lens opacification was later transferred for detailed examination with blood sugar level, blood pressure and a detailed history of the patient.

METHODS

Study design

A cross-sectional study was conducted among the daily wage workers of Navi Mumbai during January 2022- October 2022. The study was done by Prabhat Trust Solar powered Mobile Eye clinic for identification and treatment of corneal opacity. The screening was carried out in 12 subdivisions of Navi Mumbai.

Study population

A total of 600 workers were screened for eye examination. For this screening programme informed and written consent was obtained from labours.

Eye examination

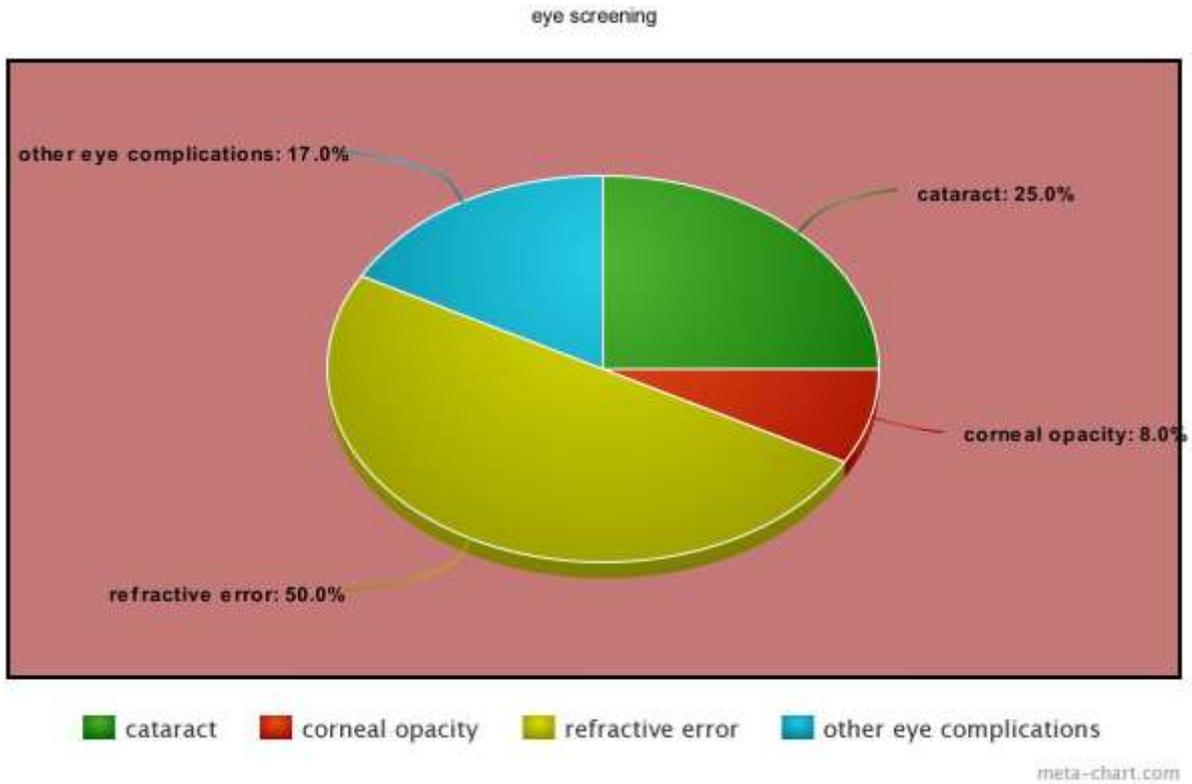
A team consisting of an ophthalmologist, senior optometrist & social worker visited the selected (Naka) areas. Depending upon the total number of workers randomly selected labours were screened. Senior optometrist was there to take a detailed history of Eye injury & torch light examination to rule out any unusual suspected Foreign body or corneal opacification of the Labour. In a mobile eye clinic optometrist did auto refractometer reading, lensometer if the worker has their glasses & subjective refraction by placing the appropriate lenses in the trial frame. Using a cover-uncover test to evaluate squint in the patient. The visual acuity was tested with the digital Snellen chart & referred to the ophthalmologist for detailed eye examination on slit lamp.

At the base hospital further complete ophthalmic examination was done by the ophthalmologist for evaluation of cataract.

The data were entered into the Excel sheet and analysed using the Statistical Package for the Social Sciences version 16.0 (SPSS Inc, Chicago, IL, USA). The data were expressed as proportions (*n*, %).

RESULTS

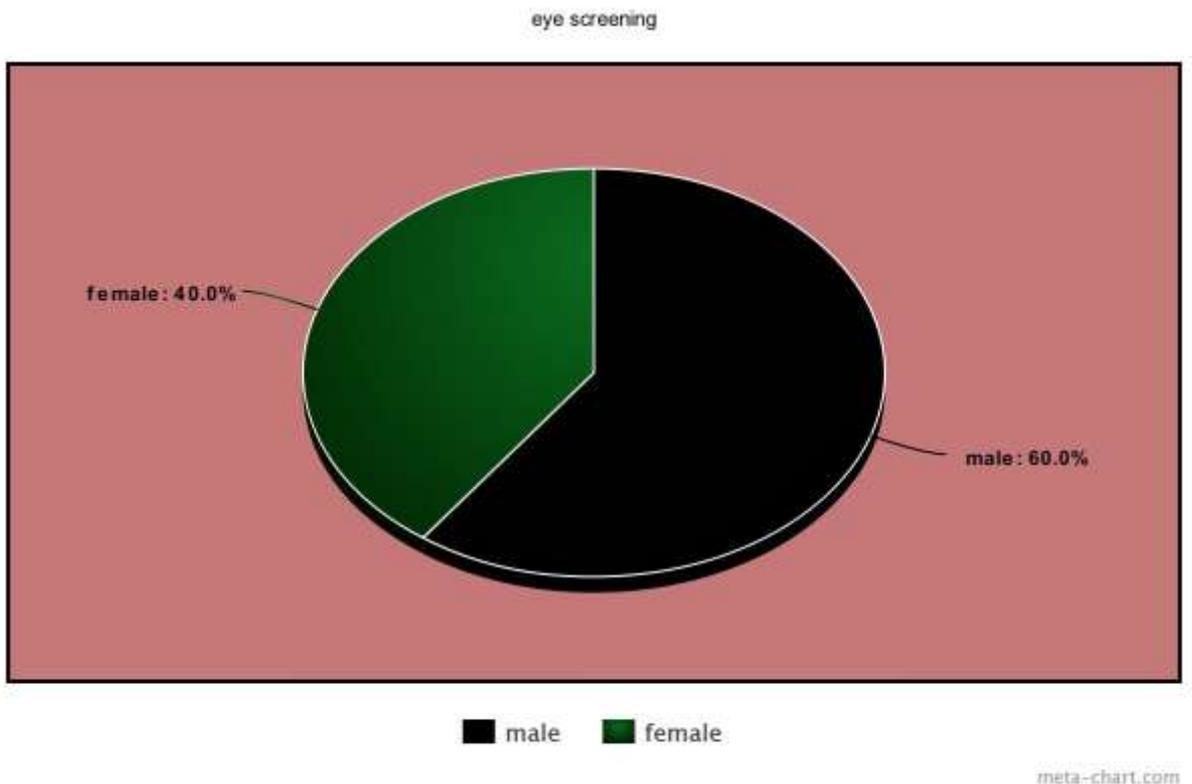
Total of 600 workers were screened from 12 subdivisions of Navi Mumbai. Some other ocular cases like squint, vitamin A deficiency, and refractive error,allergic conditions, stye chalazion, were also diagnosed by the ophthalmologist but could not be recorded for analysis due to the unavailability of data.



Patients with traumatic cataract at an early stage of life as this can cause Partial or total damage to the zonules may also occur, resulting in subluxation of the crystalline lens.

Gender distribution of daily wage workers having traumatic cataract in Navi Mumbai where male are prone to have traumatic cataract as compared to females.

The prevalence of traumatic cataract in Males was slightly higher, traumatic cataract 60 (70%) than females 40(30 %).



DISCUSSION

The team were aware about the condition because due to poor financial conditions and an unstable income source these workers

Conclusion

The study provides useful and baseline data about the daily wage workers of Navi Mumbai. A larger study needs to be conducted in all the subdivisions of the state to get a clearer picture of traumatic cataract and other eye related diseases to detect vision problems as early as possible to provide the needful assessment to the workers.

A cataract is characterised by a loss of transparency of the ocular lens and is a frequently acquired cause of visual impairment in people >40 years of age [1]

Timely intervention for eye examination plays an important role to protect workers from becoming blind. As a traumatic cataract can further lead to a cause of blindness for the patient which is a sight threatening issue by which their daily income source can be hampered due to its visual acuity .

Traumatic cataract is often the most significant cause of unilateral loss of vision in developing countries. Worldwide males are more commonly involved in traumatic cataract than females.9-11

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Conflicts of interest

There are no conflicts of interest.

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