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Original Research Article

Awareness and Knowledge about Eye Donation in Patients Attending Eye OPD

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ABSTRACT

Aim: To assess the knowledge, attitude and awareness of general population towards eye donation which includes patients and their attendants coming to the outpatient department of a tertiary care medical college hospital of Central India.
Materials and Methods: 300 participants were asked to answer a pretested semi-structured questionnaire in their own language.
Data was analyzed using SPSS software version 16, using appropriate tests.
Results: In this study of 300 participants, 63.3% were aware about eye donation.37% of the respondents were unaware whether one can donate eyes before or after death.25% knew eyes can be retrieved after death while 38% thought that eyes could be donated while a person is alive. The ideal time of eye retrieval after death was known to only 25%.47% were aware that after eye donation it should be utilized within a period of 24 hours. 38% were aware that the cornea is utilized for transplantation. Media and health professionals played a major role in creating awareness for eye donation.
Conclusion: Multipronged innovative strategies should be adopted to increase the awareness regarding eye donation in the population and ways and means must be procured for the public to engrave them.

Key Words: Eye donation, Awareness, Knowledge.

INTRODUCTION

The World Health Organization (WHO) estimates that for every 5 seconds someone goes blind. Corneal diseases constitute a significant cause of visual impairment and blindness in the developing world. The country accounts for 20% that is 39 million blind populations across the globe, of which 12% are on account of corneal blindness (WHO visual impairment and blindness fact sheet June 2012). [1]

As per the current statistics, corneal blindness is the 4th leading cause of blindness worldwide. [2]

Donated eyes can be used to restore vision in people who are suffering from blindness. The front, clear and transparent tissue of the eye called as cornea can be used to restore vision in a corneal blind person. The other portions of the eye are also used for research and training purposes to develop cures for some of the common eye diseases.

According to the Eye Bank Association of India, the current cornea procurement rate in India is 22,000 per year. It is estimated that a significant proportion of donor corneas are unsuitable for corneal

transplantation. [3] Based upon our current ratio of available safe donor eyes, we would need 2,77,000 donor eyes to perform 100,000 corneal transplants in a year in India. [3] This is approximately a 20-fold increase from the donor eyes available now.

Corneal transplant is only remedy for corneal blindness, which is possible through cornea donation. Keratoplasty [4] or corneal transplantation is the sight restoring surgery for corneal blindness. It is a surgical procedure where the damaged or diseased cornea is removed and replaced by a healthy cornea from a deceased donor. This surgery is presently totally dependent on eye donation after death. There is currently no substitute for human corneal tissue.

A shortage of transplantable corneas is common and has been the subject of much attention. To increase procurement of corneas, raising the level of public education on eye donation is an important first step. Soliciting for actual eye donation at the time of death is a necessary and accepted practice [5] though the factors affecting procurement of corneas and the public attitude towards eye donation have recently received attention in the developed world [6] not much has been published from the developing world.

Medical professionals can enhance eye donation rates by educating and motivating the relatives in case of patient's death. The present study was done in an attempt to assess the awareness about eye donation among population in central India.

Objectives:

To assess the awareness about eye donation among patients attending ophthalmology OPD.

MATERIALS AND METHODS

Type of study: Cross-sectional study.
Period of study: June 2018
Sample size: 300 patients

Three hundred patients were included in the study carried out at a tertiary health care center in Central India. The data was collected by questionnaire method from. We used a structured questionnaire to elicit responses. All patients fulfilling the inclusion criteria were selected by random sampling. We included questions regarding awareness of eye donation, source of information, awareness of corneal transplantation, and procedures involved. Questions were administered in the local language. We also collected demographic details from respondents including age and gender.

Inclusion Criteria:

1) All patients and relatives attending ophthalmology OPD aged more than 18 years of age.
2) All patients and relatives capable of reading and answering the questions

Exclusion Criteria:

1) All patients or relatives below 18 years of age.
2) Any patients or relatives who are illiterate
3) Any altered mental health.

Statistical Methods

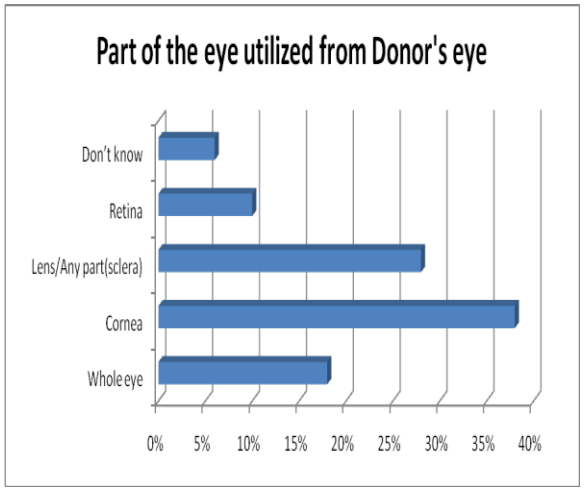
Data was analyzed using SPSS software version 16, using appropriate tests.

RESULT

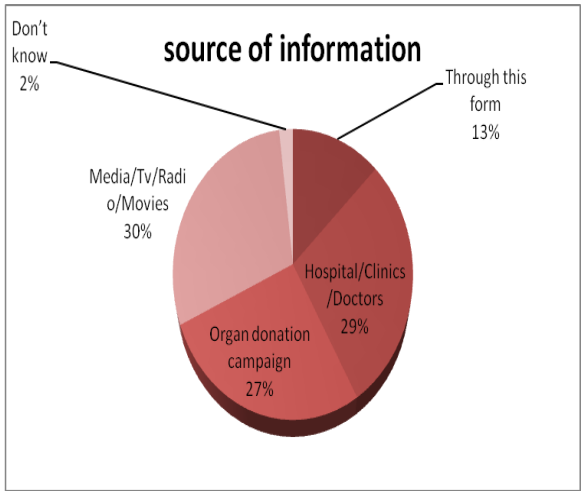
Out of 300 participants, 135(68.9%) were in age group 18-40 y. Majority that is 53.6% of the participants were males.63.3% of participants were aware about eye donation. 48% were aware that the enucleation procedure should be performed by an eye specialist/eye surgeon.

Although subjects who were more than 40 y of age were more aware regarding ideal time for eye donation, relative's consent, contact place, preservation of eyes; it was not significantly different from subjects aged less than 40 y.

About 18% thought that the entire eye is used for donation while 38% were of the opinion that cornea is the only part donated from donor's eye.



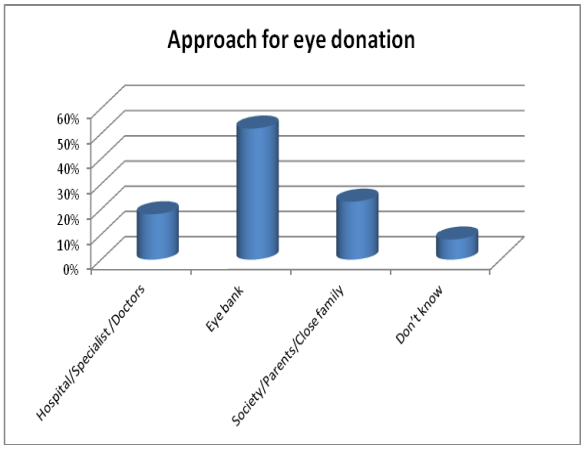
Regarding source of information about eye donation, health care providers, electronic and print media and organ donation campaigns almost equally share the credit which is 29%, 30% and 27% respectively. Small proportions (2%) of people were unaware. Few (13%) of the respondents became aware of eye donation through this form.



Most (37%) of the respondents were unaware whether one can donate eyes before or after death.25% knew eyes can be retrieved after death while 38% thought that eyes could be donated while a person is alive.

The ideal time of eye retrieval after death was known to only 25%.47% were aware that eye after donation should be utilized within a period of 24 hours. 38% were aware that the cornea is utilized for transplantation.

Majority (52%) of the individuals approached the eye bank for eye donation, while the rest of the crowd (23%) went to family, societies or parents for eye donation and its procedures. Few (18%) of them asked their doctors and specialists in the field.



DISCUSSION

Vision is a privileged function of the human eye. Seldom does its absence leave one in a comfortable state. Currently worldwide, cataracts are the number one cause of preventable blindness and remains the leading cause of visual impairment (47.9%) in all areas of the world [7] followed by corneal pathologies constituting nearly 12% of blindness burden. [8] Studies in India and Africa indicate a much greater corneal causation of blindness, 14.6-15.4% and 11-30% of total blindness, than is captured in the WHO categories of "corneal opacities" and "trachoma". [9-11] The global breakdown illustrates the particularly heavy burden of corneal blindness on emerging and developing countries, with 98% of bilateral corneal blindness existing outside of developed countries. [12]

In a southern India-based study, corneal blindness has been projected to grow from 0.66% (2001) to 0.84% (2020) prevalence, largely from unilateral cases. [13]

To reduce the discrepancy between the need and availability of corneal tissue, Eye Bank Association of India have started Hospital Corneal Retrieval Programme (HCRP), where attempts are being made to

motivate & counsel the relatives of a deceased person in Hospital for Eye Donation by sensitizing them regarding corneal blindness & benefits of corneal transplantation, and organizing for quick, convenient enucleation or corneoscleral button excision [3]

The current cross sectional study was conducted at a tertiary health care center, in Central India. In this study, the population of patients attending the ophthalmology OPD along with their attending relatives was given a pre structured questionnaire which would assess their knowledge and awareness about eye donation.

In present study, 63.3 % of respondents were aware of eye donation. Our study found almost 50.3% of people aware about eye banks whereas Kumar et al. also found that 94% students in a medical college in Bhopal were not aware of any eye bank in India. [14] Singh et al. reported low (67.4%) awareness of existence of eye banks.

Eye donation awareness level similar to our study was reported from eastern part of Singapore by Yew et al [15] i.e. 35.8%, while it was less in studies reported by Joshi SD from rural Nepal (30.7%), Priyadarshini et al., from South India (50.7%) and Bhandary S [16] from Malaysia (69.0%). In a study by Ronanki et al., [17] in Andhra Pradesh, overall 93% awareness was found among female health assistant trainee students, teachers, social workers and kin of the family members who had earlier donated corneas.

The vital source of information regarding eye donation in present study was mass media (Television and Newspaper), similar to findings by Dandona et al., Krishnaiah et al., and Bhandary et al. [16] Ronanki et al. [17] but in study conducted by Priyadarshini B et al., [18] the major source of knowledge was publicity campaigns.

Donor eyes can be enucleated from any deceased person within time duration of six hours from the actual time of occurrence of death. For successful corneal transplantation retrieval of cornea at correct time after death is necessary. In present study, 25% respondents were aware about the ideal timing to donate the eyes after death while a study by Ronanki et al., [17] in Andhra Pradesh, 64.8% participants were aware about ideal timing of eye donation, In a study by Priyadarshini B et al., [18] only 4.3% persons knew about time to donate eye.

CONCLUSION

Although majority of participants were aware of eye donation, they do not have any proper knowledge of the procedure, the place, person and time span available for procurement of the eye. Therefore, there is great need to have educational as well as motivational programs for general public to convert awareness into willingness to become eye donors and help mankind by giving sight to the needy.

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