



LEVEL OF AWARENESS REGARDING EYE DONATION AMONG PATIENTS ATTENDING EYE OPD AT TERTIARY HOSPITAL

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ABSTRACT

Introduction: Ocular trauma and corneal ulceration are significant causes of corneal blindness. India needs 2.5 lakh donated eyes every year but able to collect a maximum of just 25,000 eyes. Aim of the study was to evaluate the level of awareness regarding eye donation among OPD patients at a tertiary hospital.

Method: We recorded 154 patients presenting to the out-patient department of a tertiary care hospital who were willing to participate in the survey were requested to fill the form and answer 11 questions pertaining to awareness of eye donation. The questions had multiple options and subjects were requested to answer as per their choice.

Result: The results showed that 14% responders were not aware about eye donation. Awareness through eye donation campaign was maximum (38%) followed by awareness through mass media (18%). 60% responders were not aware about any eye bank in Madhya Pradesh. 47% responders were not aware that only deceased can donate eyes and not living individuals. 79% responders were not aware that filling of eye donation form by the individual during lifetime is not mandatory for eye donation. 50% responders were aware that only corneal diseases can be cured by corneal transplantation.

Conclusion: There is gross lack of awareness about eye donation among outpatient department and their relatives.

Key words: Eye donation, outpatient department, tertiary hospital, central India

INTRODUCTION

Corneal diseases (corneal ulcer, trauma, bullous keratopathy following cataract surgery, keratoconus, corneal dystrophies and trachoma) constitute significant causes of visual impairment and blindness worldwide, especially in developing

countries^(2,3) According to national program for control of blindness for vision loss among Indians is due to cataract (62.60%), refractive error (19.70%), glaucoma (05.80%), posterior segment disorder (04.70%), surgical complication (01.20%), corneal blindness (0.90%), posterior capsular opacification (0.90%), others (04.19%)

Corneal blindness accounts for 0.9% of the blindness in India.⁽⁴⁾ It is a significant cause of visual impairment world wide especially in developing countries. The major causes of corneal blindness include trachoma, corneal ulceration following xerophthalmia due to vitamin A deficiency, ophthalmia neonatorum, and the use of harmful traditional medicines, onchocerciasis, leprosy, and ocular trauma.^{5,6} Corneal transplantation offers the potential for sight restoration to those who are blind from corneal diseases.

The number of patients waiting for corneal transplantation is growing due to insufficient number of eye donations in India. Eye donations are dependent on people willing to pledge their eyes for donation and on relatives to honor that pledge upon the death of the person. In India, the number of corneal transplantations far outnumbers its requirement. Sri Lanka and USA are major donors of cornea for many countries including India because procurement of local donor eyes is low⁷. Raising the level of understanding about eye donation among the public through health education is an important step to achieve more local eye donations. The number of patients waiting for corneal transplantation is growing due to insufficient number of eye donations in India coupled with inadequate transplant surgeons. India is the second most popular country in the world and is home of 23.5% of the world's blind population out of which 0.9% is due to corneal blindness^{8,9}. As many as 2 million Indians are corneally blind. Every year, another 30,000 are added to this figure. Half of them can get their sight restored through corneal graft surgery. Against the annual demand for 100,000 corneas, only 16,000 are available. The only hope for the majority of victims lies in eye donations. But the tragedy of those waiting for eye donations is inexplicable. There is a large gap between demand and supply because there is such a low awareness about how easy and noble eye donations are.¹⁰

This study was undertaken to assess the awareness, knowledge and attitude among the patient coming to eye out patient department on eye

donation in central India as most of the studies were done in southern and northern part of India. According to Madhya Pradesh national program of community medicine (MP-NPCM 2014) the data achieved was good in southern and northern parts but the data of central India was poor. So it is showing gross lack of awareness in central India.

METHODS

The period of study was from 2014 January to March. We have enrolled 200 patients but out of 200 patients 46 patients form were incompletely filled so it was discarded. Only 154 patients were taken in the study. A study was undertaken to assess the knowledge attitude and practice among the patient attending the eye out patient department regarding eye donation using a standard predesigned and pretested questionnaire. All the patients were attending eye out patient department were enrolled after explaining the purpose of the study and willing to participate, from each participant informed consent. The questionnaires were provided to the each respondent and their relatives. The study was conducted by author Dr. Nida and Dr. Mary and guided by Dr. Prakash Agrawal, Dr. Prof. VK Saini. The data thus generated was tabulated and analyzed using SPSS version 17.0 program.

RESULT

Table 1: Various media for eye donation awareness

Various media for eye donation awareness	Frequency (%) (n=154)
Mass media/TV/radio /movies	28 (18.2)
Hospitals/clinics	23 (14.9)
Friend	22 (14.3)
Through lecture	1 (0.6)
Eye donation campaigns	59 (38.3)
Through this form	21 (13.6)

Table 2: General awareness

Questions	Yes	No	Don't know
Name any eye bank that you know in MP/India	62(40.3)	92(59.7)	0
Can eye be removed from a living person for donation	72(46.8)	69(44.8)	13(8.4)
is it necessary to fill the consent eye donation form before death	122(79.2)	17(11.0)	15(9.8)
Are you willing to donate your close relative's eyes	113(73.4)	24(15.6)	17(11)
Are you willing to donate your eyes	94(61)	35(22.7)	0

Table 3: Significance of death retrieval time

Death retrieval time	Frequency (%) (n=154)
Before 1 Hour	44 (28.6)
6-12 Hour	41 (26.6)
12-24 Hour	54 (35.1)
Don't Know	15 (9.7)

Table 4: Person authorized for consent

Person authorized for consent	Frequency (%) (n=154)
Consent is necessary before death	64 (41.6)
Neighbour can give consent	3 (1.9)
Close relatives	87 (56.5)

Table 5: Age of donor (Deceased) for eye donation

At what age eye can be donated	Frequency (%) (n=154)
below 10 years	2 (1.3)
from 20-40 years	26 (16.9)
After 40 years	18 (11.7)
Any time	108 (70.1)

The results showed that 14% responders were not aware about eye donation. Awareness through eye donation campaign was maximum (38%) followed by awareness through mass media (18%) (Table-1). 60% responders were not aware about any eye bank in Madhya Pradesh (Table-2). 47% responders were not aware that only deceased can donate eyes and not living individuals (Table-2). 79% responders were not aware that filling of eye donation form by the individual during lifetime is not mandatory for eye donation (Table-2). 50% responders are aware that only corneal diseases can be cured by corneal transplantation. 42% persons are not aware about the person authorized for consent (Table-4). 27% of patient don't know that at what age eye can be donated (Table-5).

DISCUSSION

Cost for donor cornea is prohibitive due to the lack of local donors which can be attributed to the lack of national awareness on corneal transplantation and eye donation.

According to national programme for control of blindness the target of collection of donated eye in central India (M.P) in 2013 was 3200 out of which none were collected and in 2014 target was 1000 out of which none were collected.¹¹ This shows the effect of poor awareness of eye dona-

tion and its impact on society.

According to other studies of eye donation like Sanjeev et al studied four hundred (400) students studying undergraduate degree courses in Medicine, Nursing, Laboratory Technology and Physiotherapy (Paramedical) and found out that most of the students (376, 94%) did not know about any eye bank in India. Eighty one (20.25%) students were aware that whole eye can be removed from the donor. A remarkable number of students (125, 31.25%) did not know how long the donor eye could be stored before transplantation. The results of this study indicate that there is a need to educate the young adults in our society about corneal transplantation.¹²

Sulatha Bhandary et al found that 69% of the participants had the awareness about eye donation, the willingness to donate eyes was seen in only 34.42%. This finding of better awareness than willingness to donate eyes is well observed in the study by Yew *et al.* in Singapore (awareness 80.7% and willingness 67%). Also, the study by Tandon showed that the prior knowledge of eye donation, literacy, and socioeconomic status had no influence on willingness for eye donation and major reasons for not donating eyes included refusal to discuss the issue and dissuasion by distant relatives, legal problems, and religious beliefs.¹³

CONCLUSION

Level of awareness regarding eye donation among patient coming to eye out patient department population must be increased. As from the result it shows that maximum awareness is through eye donation camping so it can be improve by educating people and showing videos in peripheral camps. Now a days most of peoples watch t.v and listen radio it is one of the best way to increase awareness. Also educating the relatives who came in donors funeral by awarding that donor.

RECOMMENDATIONS

To increase the level of awareness and knowledge of community on eye donation, more health education about eye diseases, eye donation and corneal transplantation is needed. This can be achieved by educating general public as well as practicing doctors of various discipline on the importance of eye donation and benefits of corneal transplantation and training them to

motivate the families of ill patients to pledge for eye donation. Medical students have great potential to increase eye donation. They come in contact with many patients and therefore have a great opportunity to motivate the patients or relatives to donate eyes. In addition to this, utilization of the mass media to increase the coverage of eye care education and eye donation campaigns will also help to increase the frequency of eye donation. The lack of local eye donations should be taken seriously and measures must be taken by all the concerned governmental and nongovernmental organizations to improve this situation so that needful patients can be transplanted at an affordable cost without waiting for long periods.

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