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AWARENESS AND PERCEPTION REGARDING EYE DONATION AMONG STUDENTS IN VISAKHAPATNAM

Medical Science

Dr. Vepa Meenakshi Assistant Professor, Department of Ophthalmology, Andhra medical college, Visakhapatnam.

Dr. T. Jyothirmai Assistant Professor, Department of Ophthalmology, Andhra medical college, Visakhapatnam.

Dr.Sharath Chandra Basa Junior Resident, Department of Ophthalmology, Andhra medical college, Visakhapatnam.

ABSTRACT

AIM : To asses awareness among students regarding eye donation

MATERIALS &METHODS : This is a cross-sectional community based study conducted on 500 students belonging to professional & vocational courses. The sample includes 100 students each from 1 medical college,1 nursing college,1 engineering ,1 degree college,1 postgraduate college. A semi- structured questionnaire was self administered for collecting the necessary information after obtaining informed consent.

RESULTS : Among 500 students 62.2% knew that eyes can be donated after death,but only 50%knew that the ideal time is with in 6hrs of death. only 39.4%of students knew that eyes can be donated by people of any age.only 36.8% students know the contact place for eyedonation in vizag. 83.2% are willing to donate. donated eye can give vision to a person is the main motivational force for donation.objection by family members is the main reason for not donating eyes.

CONCLUSION : Medical students have better knowledge than non medical students.

KEYWORDS

Eye donation, awareness, perception, students

INTRODUCTION :

Corneal disease constitutes a significant cause of visual impairment and blindness in the developingworld.corneal scarringresulting fromkeratitis or trauma,trachoma,vit A deficiency,ophthalmia neonatorum are major causes of corneal blindness.[1-3]

The Andhra Pradesh Eye Disease Study (APEDS) reported the prevalanceof corneal blindness at 0.13% (95%CI :0.06-0.24), constituting 9% of all blindness.APEDS also suggested a significant burden of corneal blindness in the rural population of Andhra Pradesh,of which 95% was avoidable.Althoughstrategies to prevent corneal blindness are likely to be cost effective,visual rehabilitation by coneal transplantation remains the major treatment for restoring the sight in those who already have corneal blindness.[4]

Approximately 18.7 million people are blind in india[5] and 1,90,000 are blind from bilateral corneal diseases. Every year, another 20,000 join the list. this problem is compounded by a low level of annual procurement of donor eyes which is 18,000 annually as per a report of NPCB and Eye Awareness.[6]

According to Eye Bank Association of India (EBAI), the current cornea procurment rate in india is 22,000 corneal donations per year. Ofthese, asignificant proportion is unsuitable for transplantation.[7] Based on current ratio of suitable corneas, we would need 2,77,000 donations per year to perform 1 Lakh corneal transplants.[8]

To enhance procurement of corneal donation,raising the level of public education on eye donation remains the important step.[8] Well-informed students could be expected to influence eye donations rates.[9]

This study was designed to assess the awareness regarding eye donation among students.

MATERIALS AND METHODS :

This was a cross-sectional community based study conducted in the month of March 2016,on 500 students belonging to professional and vocational courses.The sample includes 100 students each from 1 medical college,1 nursing college,1 engineering college,1 degree college and 1 post graduate college in Visakhapatnam. A semi structured questionnaire was self-administered for collecting the necessary information after obtaining informed consent.Those who have not given any response for a question are assumed to not have any knowledge regarding that aspect of eye donation.

RESULTS :

The questionnaire was administered to 500 students.The mean age of students was 20.42 years (ranges 19-24 years). For ease of discussion, the term 'medical group' has been used to indicate both MBBS and nursing students and the term 'non-medical group' includes the rest of students.Interestingly,the percentage of medical group students who were aware that eye donation could be done only after death is 67%% while in the non-medical group it is 59%.Only 50% of students knew the ideal time for eye donation.Students of both medical and non-medical groups are poorly aware of the fact that there is no age limit for eye donation ,only 39.4% of students responded correctly.78.5% medical and 62.3% non-medical group students know that the donated eye is used to replace cornea.

Medical group students (87%) have good knowledge when compare to non-medical group students (71%) regarding the concept of kith & kin being able to give consent for eye donation if the dead person has not pledged for eye donation.

40% of medical group and 58.3% of non-medical group students think that the body needs to be shifted to hospital for corneal retrieval and 30% of students think that it is time taking process.

Though 82.3% of students are willing to donate their eyes,only 36% of students know the contact place for eye donation in visakhapatnam.

TABLE - 1
Responses to the questionnaire on eye donation

RESPONSES	MBBS	NURSING	ENGG	B.Sc	PG
Eyes can be donated after death	76%	58%	66%	53%	58%
Donated eyes can be used for corneal grafting	84%	73%	58%	60%	69%
Ideal time for donating eye is within six hours	66%	45%	44%	54%	41%
Any age persons can donate eyes	36%	53%	37%	29%	42%
persons wearing spectacles can donate eyes	95%	58%	61%	60%	67%
Blind people with normal cornea can donate eyes	77%	32%	53%	57%	53%

Consent can be given by the relatives of the dead person if he has not pledged for eye donation	90%	84%	73%	62%	78%
Body need not be shifted for corneal retrieval	64%	56%	40%	42%	46%
Collecting an eye is a time taking process	18%	39%	37%	29%	27%
Removing eyes does not disfigure the face of deceased	85%	73%	76%	83%	74%
Knows that there is eye shortage in india	85%	77%	80%	82%	82%
Knows contact place for eye donation in visakhapatnam	24%	54%	35%	39%	32%
Willing to donate eyes	89%	81%	76%	86%	84%

Donated eye can give vision to a blind person is the most (59.3%) perceived reason for donating eyes and objection by the family members is the most (44%) perceived reason for not donating eyes.

TABLE - 2
Distribution of perceived reasons for donating eyes

	MBBS	NURSING	ENGG	B.Sc	PG
Eye donation is a noble work	20%	14%	14%	12%	9%
Pleasure to help the blind	12%	21%	20%	17%	15%
Donated eye can give vision to a blind person	55%	42%	40%	53%	57%
Influencedby media/book/lecture	1%	1%	2%	1%	—
Friend or relative has donated eye	1%	3%	—	2%	3%
Friend or relative has received eye	—	—	—	1%	—

TABLE - 3
Distribution of perceived reasons for not donating eyes

	MBBS	NURSING	ENGG	B.Sc	PG
Lack of awareness	2%	2%	3%	4%	4%
Objection by the family members	6%	10%	9%	4%	8%
Disliking of seperating eye from body	—	—	6%	5%	—
Unsuitability to donate	1%	3%	4%	—	2%
Religious restrictions	2%	2%	—	—	1%
Transplantation yields poor results	—	2%	2%	1%	1%

TABLE – 4 Source of information on Eye donation

Source	Number of students *
Television/ Movies	389(77.8%)
Newspaper/Magazine	341(68.2%)
Posters	216(43.2%)
Doctor/ Nurses/Health workers	128(25.6%)
Friends/Familymembers/Relatives	199(39.8%)
Pamphlets	203(40.7%)

*Multiple responses

DISCUSSION :

In this study,only 62.2% students were aware that eyes can be donated after death.(Table- 1)In a study conducted by Singh et al on medical students 99.4% were aware that eyes could be donated after death.[10] Another study done by Dhaliwal on medical and non-medical students revealed that 82.19% knew that eyes could be donated after death.[11] however, a study done by Priyadarshini et al among south indian population,50.7% of participants were aware of this fact.[12] In contradiction to studies which stated high rates of awareness,the awareness in our study is lesser, probably because of the misconceptions prevailing in the region among students.

In our study 50% of students knew the ideal time for donating an eye after death(Table – 1) where as it was 63.01% of students in Dhaliwal study. In Singh et al study, 41.1% students knew the ideal time for eye donation.[10] In another study done by Gupta et al, only 38.2% of nursing students knew about ideal time.[13]

Medical students (78.5%) have better knowledge compared to non-medical students (62.3%) regarding cornea being the transplanted structure(Table -1). In Dhaliwal study,a similar question depicted a great variation in the responses given by medical (100%) and non-medical (39.5%) students.[11] This shows medical students have a better knowledge.

It's a matter of concern that only 40% of total participants have knowledge regarding the fact that there is no age limit to donate the eyes (Table – 1). Only 60% of students knew that eyes can be donated irrespective of refractive error, previous surgeries and blindness due to non-corneal diseases(Table- 1). To the best of knowledge these aspects of eye donation have not been studied in other studies conducted so far and further highlight the lack of awareness among students.

Good number of students (82%) knew that there is shortage of eye donors in India(Table-1).94.4% of participants inSingh et al study and 84.5% of participants in Gupta et al study agreed that there is shortage of eye donors in India.

In our study 85% of medical students and 82% of non-medical students are willing to donate eyes(Table-1). In Dhaliwal study 83.7% of medical and 87.5% non-medical students wouldlike to pledge their eyes for donation.[11] In Singh et al study 87.2% students[10] and in Gupta et al study 85.1% students have shown interest to donate eyes after death.[13] This shows that majority of the young generation all over the India are willing to donate eyes, but unfortunately,only 36.8% of students in our study know the contact place for eye donation(Table-1). In a study on medical students shown that only 27.2% are know the appropriate place for eye donation.(Table-1)[10] The above findings clearly drives the point home that there is utmost need for adequate number of awareness campaigns.

The most perceived reasons by the students for donating eyes are 'donated eyes can give vision to a blind person' (59.3%) followed by 'pleasure to help the blind' (20.4%)(Table-2).The reasons for not donating eyes are objection by the family members (44%) followed by lack of awareness (17.8%)(Table-3).

Not only mass media in the form of television&movies (77.8%), newspapers&magazines(68.2%) were important sources of information on eye donation but are also an unidentified source of misconceptions.(Table-4)

CONCLUSIONS:

Eventhough the medical group students have better knowledge regarding some aspects of eye donation,as a whole there is gross lack of knowledge in both medical and non-medical groups regarding the logistics of eye donation. More than 2/3rds of the participants were unable to locate eyebank though most of them were inclined to pledge their eyes. This indicates a gross inadequacyof media publicity on eye donation. Lack of these essential knowledge and facts could be possible barriers to eye donation in many who are willing to pledge their eyes and hence alternate strategies have to be developed to improve awareness regarding eye donation in the young generation of India. The perceived reasons for not donating eyes need to be considered while creating awareness about eye donation. This can help in further increase in the procurement of corneas.

The students with the proper knowledge on eye donation can acts as counsellors and can volunteer in removing the misconceptions prevailing among public and motivating the general population towards eye donation.

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