

## AWARENESS ABOUT EYE DONATION IN MEDICAL STUDENTS AT ESIC MEDICAL COLLEGE & HOSPITAL, FARIDABAD

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### ABSTRACT

#### BACKGROUND

Eye donation received every year in India is very low when compared to demand; sensitisation among people is needed on this important topic. Medical students will play big role in future in creating eye donation awareness in society. Keeping this thing in mind present study was carried out for assessing medical student's own knowledge on eye donation.

#### MATERIALS AND METHODS

Study was carried out at ESIC Medical College & hospital, Faridabad. Option for participation was given to MBBS students after complete explanation about study details. 225 students from I, III and V semester participated in study. Their knowledge was assessed using a questionnaire with 20 questions on different aspects of eye donation.

#### RESULTS

96% students were willing to promote eye donation in society in future but they lack some basic knowledge on this issue. 64.44% did not know that eye donation is possible only after death. 49.33% did not know that eye donation can still be carried out even if deceased person had not pledged for eye donation. 47.56% and 58.22% students responded that cataract and optic atrophy respectively are contraindication for eye donation.

#### CONCLUSION

Medical students are enthusiastic to promote noble cause of eye donation but they lack some basic knowledge on this issue. Specific efforts are needed to fill these lacunae in their knowledge. This will help us in long term for sensitization of people in society on eye donation.

#### KEYWORDS

Eye Donation, Medical Students, Awareness, Deceased, Knowledge, Corneal Transplantation.

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#### BACKGROUND

In India 6.8 million people have vision less than 6/60 at least in one eye because of corneal causes out of these 1 million have bilateral involvement.<sup>1</sup> It is expected that no of people with unilateral corneal blindness will increase to 10.6 million by 2020.<sup>2</sup> Corneal blindness can be treated by corneal transplantation.<sup>3</sup> India needs 2,77,000 donor eyes every year.<sup>4</sup> Eye donation received annually in India is only 25000.<sup>5</sup> so there is huge gap between requirement of donor eyes and actual procurement in India.

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Awareness about eye donation is low in India. According to previous studies awareness about eye donation less in north India compared to south India.<sup>6</sup>

Medical students have huge responsibility as they will be spreading knowledge regarding eye donation in society in future. Medical students will play important role in motivating people for eye donation in future.

Therefore, knowledge of medical students regarding eye donation is very important. As there were only few studies carried out in northern India for assessing awareness of eye donation in medical students. This study was carried out for gaining knowledge regarding this important topic.

#### Aims and Objective

To know level of awareness about eye donation in medical students (I to V semester) at ESIC Medical College & Hospital, Faridabad.



**MATERIALS AND METHODS**

This was a cross-sectional descriptive study. Study was carried out from Sep 2017 to Nov 2017 at ESIC Medical College and Hospital Faridabad. Detailed study procedure was explained to the students studying in I, III and V semester at ESIC Medical College Faridabad, informed verbal consent was taken for their participation in study. Explanation was given to the students that they don't have to mention their name and their responses on questionnaire will not affect their academic grades.

Study was conducted in accordance with declaration of Helsinki. Institutional ethical committee clearance was taken.

**Inclusion Criteria-** MBBS students, studying at ESIC Medical College & Hospital Faridabad and giving their verbal consent for participation in study after complete explanation about the study.

**Exclusion Criteria-** Students not giving their verbal consent for participation in study after complete explanation about the study.

Semester	Total No. of Students	No. of Students Participated
I	100	85
III	97	80
V	95	60

**Table 1. No. of Students Participated in Study**

Questionnaire with 20 questions was given to each participant. Each question has options either in Yes or No.

Sr. No.	Questions	Option
1.	Have you ever heard about eye donation	Yes/ No
2.	Does India meet its eye donation requirement every year	Yes/ No
3.	Eye donation rate is more in southern India than northern India	Yes/ No
4.	Eye donation is possible only after death	Yes/ No
5.	During your life time, you can pledge to donate your eyes after your death	Yes/ No
6.	If deceased person had not pledged for eye donation, eye donation can't be carried out	Yes/ No
7.	People with cataract cannot donate their eyes	Yes/ No
8.	Blindness due to optic atrophy is a contraindication for eye donation	Yes/ No
9.	Ideal time for eye donation is 6 hours after death	Yes/ No
10.	Only eye specialist can carry out eye donation	Yes/ No
11.	Eye donation procedure needs specialized operation theatre	Yes/ No
12.	Eye donation certificate is to be given to deceased family after eye donation	Yes/ No
13.	Whole eye is used for transplantation purpose	Yes/ No
14.	Donated eyes need to be used immediately as they can't be stored beyond 24 hours	Yes/ No
15.	Eye donation from one person gives sight to maximum two people	Yes/ No
16.	Family of the deceased gets to know the name of recipient	Yes/ No
17.	Donated eyes can't be sold	Yes/ No
18.	Do you have phone number of any eye bank stored with you	Yes/ No
19.	Are you willing to donate your eyes	Yes/ No
20.	Are you willing to promote eye donation in society	Yes/ No

**Table 2. Questionnaire**

Result was computed after collection of all the responses. The data were entered and analysed using Epi-info software package version 6.04.

**RESULTS**

Out of 292 total students 225 students participated in study.

	Total Number of Students	Number of Students Participated in Study	Male Participants	Female Participants
Semester I	100	85	54	31
Semester III	97	80	37	43
Semester V	95	60	29	31

**Table 3. Distribution of participants**

Sr. No.	Questions	Expected Response
1.	Have you ever heard about eye donation	Yes
2.	Does India meet its eye donation requirement every year	No
3.	Eye donation rate is more in southern India than in northern India	Yes
4.	Eye donation is possible only after death	Yes
5.	During your life time, you can pledge to donate your eyes after your death	Yes
6.	If deceased person had not pledged for eye donation, eye donation can't be carried out	No

7.	People with cataract cannot donate their eyes	No
8.	Blindness due to optic atrophy is a contraindication for eye donation	No
9.	Ideal time for eye donation is within 6 hours of death	Yes
10.	Only eye specialist can carry out eye donation	No
11.	Eye donation procedure needs specialized operation theatre	No
12.	Eye donation certificate is to be given to deceased family after eye donation	Yes
13.	Whole eye is used for transplantation purpose	No
14.	Donated eyes need to be used immediately as they can't be stored beyond 24 hours	No
15.	Eye donation from one person gives sight to maximum two people	No
16.	Family of the deceased gets to know the name of recipient	No
17.	Donated eyes can't be sold	Yes
18.	Do you have phone number of any eye bank stored with you	Yes
19.	Are you willing to donate your eyes	Yes
20.	Are you willing to promote eye donation in society	Yes

**Table 4. Expected Response**

Sr. No.	Question	Total No. of Correct /Expected Response	Total No. of wrong/Not Expected Response	No Response	Percentage of Correct/Expected Response
1.	Have you ever heard about eye donation	223	2	0	99.11%
2.	Does India meet its eye donation requirement every year	185	40	0	82.22%
3.	Eye donation rate is more in southern India than in northern India	183	32	10	81.33%
4.	Eye donation is possible only after death	80	144	1	35.56%
5.	During your life time, you can pledge to donate your eyes after your death	168	47	0	74.67%
6.	If deceased person had not pledged for eye donation, eye donation can't be carried out	114	111	0	50.67%
7.	People with cataract cannot donate their eyes	118	106	1	52.44%
8.	Blindness due to optic atrophy is a contraindication for eye donation	94	123	8	41.78%
9.	Ideal time for eye donation is within 6 hours of death	187	35	3	83.11%
10.	Only eye specialist can carry out eye donation	77	144	4	34.22%
11.	Eye donation procedure needs specialized operation theatre	101	122	2	44.89%
12.	Eye donation certificate is to be given to deceased family after eye donation	193	30	2	85.78%
13.	Whole eye is used for transplantation purpose	182	41	2	80.89%
14.	Donated eyes need to be used immediately as they can't be stored beyond 24 hours	108	112	5	48%
15.	Eye donation from one person gives sight to maximum two people	59	162	4	26.22%
16.	Family of the deceased gets to know the name of recipient	108	113	4	48%
17.	Donated eyes can't be sold	154	67	4	68.44%
18.	Do you have phone number of any eye bank stored with you	40	182	3	17.78%
19.	Are you willing to donate your eyes	195	28	2	86.67%
20.	Are you willing to promote eye donation in society	216	7	2	96%

**Table 5. Analysis of Response**

Majority of students (99.11%) knew that eye can be donated but only 35.56% of students knew that eye donation is possible only after death. 82.22% student were aware of the fact that India does not meet its annual eye donation requirement.

49.33 of students did not know that even If deceased had not pledged for eye donation, eye donation still be carried out. Many students didn't know that cataract (47.56%) and optic atrophy (58.22%) are not the contraindications for eye donation.

83.11% students knew the ideal time for eye donation after death. 19.11% students responded that whole eye is used for eye transplantation.

Majority of student (68.44%) responded correctly that donated eyes can't be sold. 65.78% students believed that eye donation is only carried out by an Eye specialist. 55.11% students did not know that specialized operation theatre is not needed for eye donation.

82.22% didn't have any phone no of eye bank stored with them.

Majority of students responded that they are willing to donate their eyes (86.67%) And they are willing to promote eye donation in society (96%).

**DISCUSSION**

There is huge gap between annual eye donation requirement and actual eye donation in India. There is urgent need of sensitizing society on this important issue. Medical students, who will serve society in future as health care provider, will play important role in this sensitization. So awareness among medical students regarding eye donation is very important.

In our study, we found that majority students lack basic knowledge about eye donation.

We compared our result with some other studies on similar topic.

		Present Study	Singh <sup>7</sup> et al
1.	Have you ever heard about eye donation	99.11%	99.4%
2.	Ideal time for eye donation is 6 hours after death	83.11%	41.1%
3.	India does not meet its eye donation requirement every year	82.22%	94.4%
4.	Willing to donate eyes	86.67%	87.2%

**Table 6. Comparison of Present Study with Study on Similar Topic from North India**

		Present Study	Dodia KR <sup>8</sup> et al
1.	Family of deceased does not get to know the name of recipient	48%	64%
2.	Whole eye is not used for transplantation purpose, only cornea is transplanted	80.89%	47% (Knew Cornea is Used)
3.	Do you have phone number of any eye bank stored with you	17.78%	28% (Knew the place)
4.	Ideal time for eye donation is 6 hours after death	83.11%	52%

**Table 7. Comparison of Present Study with Study on Similar Topic from West India**

		Present Study	Vidusha K <sup>9</sup> et al
1.	Have you ever heard about eye donation	99.11%	99.3%
2.	Eye donation is possible only after death	35.56%	94.4%
3.	India does not meet its eye donation requirement every year	82.22%	97.2%
4.	Ideal time for eye donation is within 6 hours of death	83.11%	86.8%
5.	Do you have phone number of any eye bank stored with you	17.78%	42.4% (Knew the place)

**Table 8. Comparison of Present Study with Study on Similar Topic from South India**

		Present Study	Panigrahi S <sup>10</sup> et al
1.	Have you ever heard about eye donation	99.11%	85.9%
2.	Ideal time for eye donation is within 6 hours of death	83.11%	79.4%
3.	Whole eye is not used for transplantation purpose, only cornea is transplanted	80.89%	55.3% (Knew Cornea is Used)
4.	Family of deceased doesn't get to know the name of recipient	48%	80.9%
5.	Donated eyes can't be sold	68.44%	73.2%
6.	Are you willing to donate your eyes	86.67%	64.5%

**Table 9. Comparison of present study with study on similar topic from east India**

Our study was carried out at a time when students were yet to receive knowledge about eye donation from Ophthalmology lectures and clinical postings. Some of the studies with which our study is compared included students after ophthalmology eye donation lectures. Some discrepancy in responses between studies can be explained due to this fact.

In general, there are many aspects regarding eye donation in which students' knowledge needs to be improved.

**CONCLUSION**

We have medical students who are enthusiastic to promote noble cause of eye donation in society. But there are many lacunae in their knowledge about eye donation. Efforts should be concentrated specifically to fill these lacunae. Special learning methods need to be devised which should give practical exposure to the MBBS students on eye donation procedure along with the knowledge on same. This will help us in long term for sensitization of people in society on eye donation.

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