

Research Article

Deceased Organ Donation and Transplantation: Initiatives at Tertiary Healthcare Institute to Facilitate Life Saving Therapy for Organ Failure Patients

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Abstract: The number of patients having end stage organ diseases/organ failure is increasing in the country. Majority of patients diagnosed with end stage organ disease cannot survive for long. Transplantation of human organs has been globally accepted as a viable option for the treatment of organ failure. Altruistic donation of organs by the families of deceased persons without expectation of any compensation can give a new lease of life to such patients suffering from terminal diseases. There is a huge potential for deceased donations in the country due to the high number of road traffic accidents. Legal framework for deceased organ donation is also available. The initiatives taken by some government and non-government organizations have shown that deceased donation is a feasible option.

Keywords: Organ Failure, Organ Donation, Transplantation, Brain-death, Organ Shortage

INTRODUCTION

Organ donation and transplantation helps in saving life and attaining qualitative life for organ failure patients. Renal transplantation is the best therapeutic modality for end stage renal disease.

Compared with dialysis, a transplant leads to a longer life, enhances quality of life and is cost-effective for the healthcare system [1].

For heart and liver failure patients, transplantation is the only chance of survival as there is no other option such as dialysis.

The prevalence of chronic organ failure and end stage disease in India excepting chronic renal failure is not known [2].

In India, 175000 new patients develop ESRD annually and 10% are able to gain access renal replacement therapy. The rate of renal transplants performed yearly in India translates to 3.25 per million population; the deceased donation rate is 0.08 per million population per year [3].

The gap between demand and availability of organs can be reduced by developing deceased donor organ transplantation programme. The paper describes the initiatives taken to promote deceased donation in a premier healthcare institute of the country.

MATERIALS AND METHODS

The study aims to describe the deceased organ and tissue donation and transplantation in a premier tertiary healthcare institute of the country. The institute is having facilities for heart transplantation, kidney transplantation, liver transplantation, pancreas transplantation, cornea transplantation & banking, heart valve transplantation & banking and bone transplantation & banking. Organ Retrieval Banking Organization (ORBO) is a designated facility to coordinate deceased organ and tissue donation.

RESULTS AND DISCUSSIONS

Deceased organ donation and transplant activity is very limited in our country. The deceased donation rate in our country is 0.08/million population which is very low as compared to many other countries [3].

In 1998, India had 1% of the world's road vehicles and 6% of the world's road accidents [4]. These accidents have increased to 10% in 2006. The total number of road accidents is approx. 90000 per annum [5]. In nearly 40-50% of all fatal accidents, the leading cause of death is head injury [6].

This implies that there is a huge potential for deceased organ donors in India from road traffic accidents alone [6]. Other causes of brain death such as sub-arachnoids hemorrhage and brain tumors can also add to the deceased donor pool. Even if 5%-10% of all these deceased patients become organ donors, there

would be no requirement for a living person to donate an organ [6].

The Govt. of India has enacted Transplantation of Human Organs Act-1994. The Act has legalized brain stem death and opened the doors for deceased donor transplantation in our country [7].

The following steps for a successful deceased donor transplantation program have been taken by ORBO in our institute:

- Maintained an active brain death donor registry. Till date, more than **20000** people have enrolled themselves in the donor registry and pledged for organ and tissue donation after brain death/death.
- Set up dedicated helpline to answer public queries and efficiently coordinate organ donation at any point of time.
- Developed an exhaustive and detailed website **www.orbo.org.in** with the facility to download organ donor form.
- Established a network with the hospitals for organ sharing.
- Encouraged early brain death identification and certification of potential donors, requesting for organ and tissue donation and obtaining consent and coordinating deceased donations round the clock by trained transplant coordinators.
- Developed SOPs and Guidelines on various aspects of organ and tissue donation such as identification of potential donors, screening of potential donors, retrieval of human organs and tissues in medico-legal and non medico-legal cases etc.
- Successfully coordinated organ and tissue donations and transplantations at AIIMS and other networked hospitals which also include the first and second combined Pancreas-Kidney Transplant and first Split Liver Transplant in the country.
- Printed brochures, posters, handbills, donor forms and cards for mass sensitization and motivation to pledge for organ and tissue donation.
- Displayed big electronic boards and hoardings giving information and favorable messages on organ donation.
- Published the book **A Tribute to Life** comprising interesting and motivating stories and messages of donors and recipients to spread awareness on the noble cause.
- Increased public awareness on brain death and organ donation through public education activities such as awareness camps, lectures-cum-presentation sessions, poster competitions, slogan competitions, display of information material in hospitals, academic institutions, NGOs, corporate sector and other govt. and private organizations.

- Provided orientation and education to students and teachers of schools around the hospital on brain death and organ donation.
- Organized orientation and training of different healthcare professionals such as doctors, nurses, transplant coordinators and grief counselors of hospitals on Cadaver Organ Donation Process.
- Organized orientation programs for Police on deceased organ and tissue donation. Around 100 police officers (DCP, ACP, SHO) were educated and trained.
- Research studies have been undertaken on organ donation and transplant related issues.

CONCLUSION

Organ donation is the true gift of life. Donated organs are transplanted in the patients who are suffering from end stage terminal diseases. The Donation of human organs and tissues not only saves lives of terminally ill patients, it also helps in attaining an improved quality of life for many patients. Unfortunately, the deceased organ donation and transplantation activity is very low in our country. Favorable public attitude regarding organ and tissue donation after death can help many patients get a new lease of life and reduce the shortage of organs in the country. ORBO is doing pioneering work to promote this noble cause. The organization has streamlined the system for deceased organ and tissue donation, undertaken awareness and public education campaigns, organized orientation and training of different stakeholders and thus has played a pivotal role in running the deceased donor transplant program at the institute.

REFERENCES

1. Matas AJ, Sutherland DER; The Importance of Innovative Efforts to Increase Organ Donation. JAMA, 2005;294(13):1691-1693.
2. Madhusoodanan P; Organ Transplantation in India : Indian Scenario and Perspectives for the Armed Forces. MJAFI, 2007; 63: 2-4
3. Gumber MG, Kute VB, Goplani KR, Shah PR, Patel HV, Vaniker AV *et al.*; Deceased donor organ transplantation: A single center experience. Indian Journal of Nephrology, 2011; 21(3): 182-185.
4. Available from: http://www.easydriveforum.com/about_easydriveforum.php.
5. Available from: <http://www.tn.gov.in/sta/tables.htm>.
6. Shroff S; Legal and ethical aspects of organ donation and transplantation. Indian J Urol., 2009; 25(3): 348-355.
7. Government of India; Transplantation of Human Organs Act, 1994. 1994.] Available from: <http://www.medindianet/tho/thobill.asp>.