ABSTRACT

Objectives: to reflect about the process of donating organs and tissue for transplant and discuss the problems inherent to the steps of this process. Method: a descriptive study, and reflective analysis. This was structured in three parts: process of organs and tissues donation for transplant, problems related to donation process in Brazil and proposals to improve the performance of the donation process. Results: the donation process is the dynamics of the systematized and inter-related actions, seeking to convert the potential donor in an organ and tissue donor. Several problems interfere in the donation process, such as: deficiency of infrastructure for making the diagnosis of brain death and maintenance of the potential donor. Conclusion: it is a need to take actions that contribute to the effective increase in notifications of potential donors, the viability and improvement of organs and tissues, because they are important to minimize mortality on the waiting lists.

Descriptors: Tissue and Organs Obtainment; Organ Transplant; Nursing.

RESUMO

Objetivo: refletir sobre o processo de doação de órgãos e tecidos para transplante e discutir os problemas inherentes às etapas desse processo. Método: estudo descritivo, do tipo análise reflexiva. Este foi estruturado em três partes: processo de doação de órgãos e tecidos para transplante, problemas relacionados ao processo de doação no Brasil e propostas para melhorar o desempenho do processo de doação. Resultados: o processo de doação é a dinâmica das ações sistematizadas e inter-relacionadas, buscando converter o potencial doador em doador de órgãos e tecidos. Vários problemas interferem no processo de doação, tais como: deficiência de infraestrutura para realização do diagnóstico de morte encefálica e manutenção do potencial doador. Conclusão: é preciso realizar ações que contribuam para o aumento efetivo de notificações de potenciais doadores, da viabilidade e aproveitamento de órgãos e tecidos, pois são importantes para minimizar a mortalidade em listas de espera. Descritores: Obtenção de Tecidos e Órgãos; Transplante de Órgãos; Enfermagem.
INTRODUCTION

Scientific, technological, organizational and administrative advances allowed the transplantation of different organs and tissues to become a type of treatment for patients with various types of terminal illnesses.1,2

In all countries, however, this advance clashes with a similar difficulty, which is the growing disproportion in the number of patients on the waiting list versus the number of transplants. The waiting lists grow worldwide and is a great number of patients who suffer and die waiting for an organ that could save them.1,2

Data from Organ Procurement and Transplantation Network (OPTN) show that, in 2011, in the United States of America (USA), 30,158 solid organ transplants were performed. However, at the end of the same year, there were 72,571 people on the waiting list for performing this procedure.1

The National Policy of Transplantation of Organs and Tissues is regulated by federal laws 9434/97 and 10211/2001. This policy established the National Transplant System (NTS) as the body responsible for coordinating and regulating the capture and distribution of organs in the Brazilian states, through the Transplant Center of the State, and to promote public awareness about the importance of the donation process of organs and tissues.3-5

The described situation is not different in Brazil where, despite having one of the largest public transplants programs in the world, with 548 health units, 1,376 authorized medical teams to perform transplants and the NTS is present in 24 states, through the Central Notification, Caption and Distribution of Organs (CNCDO), there are 27,567 active patients on the waiting list for transplant.6

It is worth noting that, although the number of patients on the waiting list for transplant in Brazil is inferior than the U.S., assesses the Brazilian situation as more worrisome, since there is estimated that there are only 91,314 people on dialysis treatment, without mentioning potential recipients of other types of transplants. Much of transplant candidates does not even have its registration or updated on the waiting list by the lack of the exams required for this procedure. Thus, it is considered insufficient the number of transplants performed in the country, when analyzed in relation to population needs.6

It is emphasized that, the effectiveness of transplantation is directly related to the deceased donor, because until the end of 2012, 7,426 of the solid organ transplants performed in Brazil, only 21.6% were with living donors. Adds that the transplantation performance with this type of donor depends on the donation of organs and tissues for transplantation process, defined as the dynamics of systematic and interrelated actions, which aims to convert a Potential Donor (PD) in an organ and tissues donor.2,6

With support on these considerations, it is proposed to reflect about the process of donating organs and tissue for transplantation and discuss the main problems inherent to the steps of this process that influence the effectiveness of transplantation in Brazil.

It is emphasized that the effective functioning of the organs and tissues donation process will reduce the waiting time in queue of transplant candidates and thereby improve the quality of life of chronically patients, whose improvement of health and even survival conditions, depends on the obtainment of organ/tissue needed.

The reflections given in this study include three stages: the first provides definitions and discusses how each stage of the donation of organs/tissues for transplantation process occurs, in addition to reporting the importance of the multidisciplinary team in this process. The following moment discusses issues relating to each step of the donation process. Finally, we present proposals that could improve the performance of the donation process.

● Process of organs and tissues donation for transplant

The process of donating organs and tissue for transplant is defined as the set of actions and procedures systematized and interrelated that can convert a PD in a donor of organs and tissues, so there is equal importance in each step and the failure of any one may compromise the final result, namely: identification, notification, assessment and maintenance of PD, confirming the diagnosis of BD, family interview, BD documentation, logistics aspects, removal and distribution of organs and tissues.2,7

The success of the effectiveness of the donation of organs and tissues depends on the assistance provided to the PD and their family, which involves infrastructure where PD is and, especially, the cooperation of the multidisciplinary team. Although the greatest responsibility and authority is assigned to physicians and nurses, the participation of other professionals is essential, who could act in an eventual or systematic manner:
Process of organ and tissue donation for...

For the diagnosis of BD, the patient should be subjected to two neurological examinations, with an interval of less than six hours, performed by two different doctors, not members of removal and transplantation team, being one of them, mandatorily neurologist or neurosurgeon. Also needs some examination to show the absence of electrical and metabolic brain activity or cerebral blood perfusion.12

After the diagnosis of BD, follows the convocation of the family for the interview, and communicated the possibility of donation of organs and tissues. Familial concordance is expressed through formal document called “Term of Authorization of Donation and Removal of Organs and Tissues.”7

When the process of determining the BD is ended, shall be annexed and recorded in the patient’s PD record, all exams performed. The physicians participating in this process must properly complete and sign the neurological examinations and report of complementary examination.13

The donation process also depends on logistics, which involves packaging, storage and transport, which must comply the ischemia time of each body and the distance between the place of capture and deployment. Another consideration relates to the scheduling of surgical rooms, materials and specialized equipment essential to the procedure.2,6

With the previous steps completed, the removal of organs and tissues is performed, in the surgical room, when are captured only the organs and tissues in appropriate functional conditions to benefice one or more receivers.2

After removal of organs and tissues, should restore the deceased donor and deliver to relatives or legal guardians for their last honors and burial, as stipulates in Article 8 of Law No. 9.434/97.14

We discuss the following aspects, that difficult or impede the achievement of the donation of organs and tissues for transplantation process.

- **Problems related to the donation process in Brazil**

The scientific literature shows that several factors may affect the execution of the donation process and, among these, we consider the lack of identification and notification of PD as the main cause of the limited rate of donors and transplants in the country. In 2012, in Brazil, 8,025 Pds were reported and only 20.0% of them came to effectuate the donation. Thus, only half of the Pds are notified, that estimated to exist
and only one in five, has its organs transplanted.\textsuperscript{2,6}

Another problem that interrupts the donation process is related to the operational difficulty of health services, to perform laboratory evaluation, which maximizes the BD patient to become PD. Necessarily, many hospital professionals and Organ Search Organization (OSO) coordinate the achievement of physical and biological exams, to assess the viability of donor testing and compatibility with potential recipients on the waiting list, but there is not always available kits for performing these tests.\textsuperscript{4}

Associated with it, is also a lack of intensive care to maintain adequate perfusion of organs and tissues, as PDs are not adequately assisted by the team responsible for its maintenance. This occurs due to inadequate structure of hospitals, with insufficient staff for the high number of patients, lack of ICU beds, plus the insufficient knowledge and lack of appreciation of the benefits of donation and transplant.\textsuperscript{15}

About the diagnosis of BD, still present barriers for notifications by donors of ICUs and emergency departments. There are doctors who do not feel comfortable making a diagnosis and claim controversies as to test for BD, lack of technical support that is necessary to achieve the required additional tests, beyond the legal responsibility that lies with this diagnosis.\textsuperscript{16}

Regarding family refusal, it often occurs because of lack of necessary information that enables the understanding of the importance of conscious donation of organs and tissues. The understanding of BD is consider as a factor that influences whether or not to authorize the donation, because often, families who have no prior knowledge about this issue, so exhibit higher resistance in the idea of the cessation of the functions of the brain in the apparently alive being.\textsuperscript{2,7,17}

Regarding the documentation of BD, the doctor must complete the death certificate with the final hour of finding BD. However, there are still persistent in achieving the emission of this statement only when cardiac arrest occurs, for this reason, the services remain artificially keeping these patients. It is noted that considering the patient, after the diagnosis of BD, under the legal, ethical and moral aspect, a corpse. Resolution No. 1986 of 2007, authorizes the FCM, seal and encourages the removal of intensive care for these patients, in case of no donation.\textsuperscript{4}

About logistical problems, are responsible for 5% to 10% of the causes of non-effectiveness of donation, most often in hospitals with lower resolution, which can display a lack of beds in ICUs, laboratories without condition for making the necessary serology, lack of equipment for the diagnosis of BD and impossibility of transport for PD removal or distribution organs.\textsuperscript{2,6}

A seguir, discorre-se sobre propostas que poderiam minimizar os problemas existentes no processo de doação.

Then it talks about proposals that could minimize the problems in the donation process.

- **Proposals to improve the performance of the donation process**

The literature mentions some measures which could minimize many problems that occurred during the donation process. Among these, we highlight the need for greater coordination with the Ministry of Education, in order to demonstrate the importance of better education for health professionals about issues related to transplants and to study the possibility of inclusion of disciplines about the subject in the curriculum of higher schools in the health field.\textsuperscript{7,8,19}

Also, it emphasizes the adoption of measures to structure the hospitals with the greatest number of reports of BD, with material and technological resources, necessary for the maintenance of PDs and perform BD diagnostic, according to the legislation.\textsuperscript{18}

The educational measures along with education services of hospitals institutions that hospitalized PDs, with the aim of planning capabilities that meet the lack in maintenance actions of PD and diagnosis of BD, which are executed, essentially by the nursing and medical teams, is also a measure of extreme relevance for the contribution in improving the donation process of organs and tissues.\textsuperscript{8,18}

Also, it emphasizes the importance of using protocols that provide adequate and consistent instructions on how to perform the care to the PD, which will certainly help to increase the number and quality of transplants offered to the population.\textsuperscript{2,8,10}

Another important point would be the disclosure of more information in the media, in order to encourage people to express in life the desire to donate. This act is simple and extremely important in the moment of family decision. Furthermore, emotional support, assistance offered to families and information about the donation process seem to be
essential to encourage the attitude of donation,\textsuperscript{7,13, 19}

CONCLUSION

Transplantation depends on the effectiveness of the donation process, which is divided into interdependent steps which need to be well executed and hinged together, from the time of identification of PD until the implantation of the organ on the recipient.

As for the problems that interfere with the development of this process, it was found that there is underreporting of PDs, infrastructure disability for making the diagnosis of BD and maintenance of PD, deficiency of knowledge of the criteria of BD by health professionals, reflected in number of family refusal to donate.

Finally, it is emphasized that the success of transplantation depends greatly of the donation process. Thus, actions that contribute to increasing effective notification of PDs, the viability and recovery of organs and tissues will be necessary, in order to minimize mortality on the waiting lists.

Given the above, it is predicted that there is urgency in conducting studies that detect complications that can support professionals about the process of donation of organs and tissues for transplantation and thus improve the demand for effective donors.

REFERENCES


Process of organ and tissue donation for...