

Care with the Potential Organ Donor in the Intensive Care Unit

ORIGINAL

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Abstract

Introduction: Organ transplants have expanded throughout the country, being extremely significant for the population.

Objective: Acknowledging the reality of organ harvesting, describing the care with the potential organ donor in an Intensive Care Unit (ICU) and comparing it with the pertinent literature.

Method: It is a research of exploratory and descriptive nature, with a qualitative approach. The data were analyzed through the content analysis idealized by Bardin.

Results: The findings point that the assertiveness of care and procedures with the potential donor is essential to the success of transplants in our country.

Conclusions: Several difficulties have been encountered, as the lack of human and material resources generating impasses in the specific care of the potential organ donor and the lack of provision of continuing education.

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Keywords

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Introduction

Scientific, technological and organizational progress has contributed to the worldwide increase in the number of organ and tissue transplants, enabling many people to benefit from this therapy. However, the insufficient number of donors, to meet the growing demand of patients on the waiting list, has become the biggest obstacle to the realization of this procedure [1].

Organ transplants have expanded throughout the country, being extremely significant for the population, a victory of science and one of the great drivers of the improvement and quality of the health system. In addition to the practice of replacing a particular worn-out region of the body with another, there is scientific advancement in laboratory organ development from genetic engineering and cell culture, and although they are still in the experiment phase, it brings much hope to those who need new organs [2].

Brazil has one of the largest public organ and tissue transplant programs in the world. The National Transplant System is present in 25 states, has 584 health facilities and 1,376 medical staff authorized to perform transplants [3].

Since 2001, by determination of the Ministry of Health, Order No. 905/2000, the Intra-Hospital Organ Donation and Transplant Tissue Commissions (CIHDOTT) were created, which have an important role in the donation-transplant process [4].

Law No. 10,211, published on March 23, 2001, defined informed consent as a manifestation of the donation, and the withdrawal of organs, tissues and body parts of persons deceased for transplantation or other therapeutic purpose will depend on the authorization of the donor, spouse or relative, of legal age, obeyed the line of succession, straight or collateral, up to the second degree inclusive, signed in document signed by two witnesses present at the death verification [5].

The Brazilian transplant program is well-established and must be taken care to ensure sustained

growth in recent years. The regulation of the program depends on several factors, from the performance of a multidisciplinary team, the identification of potential donors until the implementation of transplants and their outpatient follow-up [6].

It is in the Intensive Care Unit (ICU) or Emergency Services that most of the possible organ donors are found, most of whom are victims of neurological injuries. The multi-professional team must be qualified and prepared to deal with this situation both in the technical and scientific as in the humanistic dimension, which are inherent to nursing care [7].

The main current limitation of transplantation surgeries is the shortage of organs, due to some factors, especially the delay in the diagnosis of encephalic death. The management of the potential donor is not an easy task, since in addition to the initial illness that led the individual to hospitalization, the Encephalic Death (ME) process itself involves a series of disorders that compromise the homeostasis of the body and consequently of the organs. Understanding this process and the factors influencing the outcome is essential for rethinking strategies that improve the whole procedure, as well as proposing actions that seek to establish protocols consistent with the organ donation policy [8].

In view of the above, the objective was to know the reality of organ harvesting and to describe the care with the potential organ donor in an Intensive Care Unit and to compare it with the pertinent literature.

Methods

This is a research of exploratory and descriptive nature, with a qualitative approach, in which there is a description of the characteristics of a given population, and it may also have the purpose of identifying probable relations between variables [9].

The research was carried out at the Intensive Care Unit (ICU), in an emergency reference hospital in

the city of Mossoró, Rio Grande do Norte, Brazil, a reference for the capture of organs in the city.

The population consisted of all nurses and physicians working in the ICU of the hospital and the sample, established based on the inclusion and exclusion criteria, consisted of 04 doctors and 03 nurses. The inclusion criteria used were: to be an ICU worker for at least one year and to agree to the procedures required by the Ethics Committee, to sign the TCLE and to record the interview. Those excluded from the assistance activities during data collection and those who wanted to participate in the research, but did not agree to sign the TCLE or record their speech, were excluded from the sample.

A semi-structured interview was applied with open and closed questions, individually. This type of interview is one of the most used forms of qualitative field research [10]. The collection of data from September to October 2014 occurred after the approval of the project in the Research Ethics Committee of FACENE under the CEP protocol: 91/2014 and certificate of introduction to ethics assessment - CAAE: 34431214.5.0000.5179. The interviews were recorded on electronic device, specifically a MP4, and information were submitted to the transcription in trusted mode.

Data were analyzed through content analysis idealized by Bardin, which consists of a set of communication analysis techniques and uses systematic procedures and objectives to describe the content of the messages. The purpose of content analysis is the inference of knowledge concerning conditions of production and reception of messages [11].

This analysis is organized in three phases: pre-analysis, exploration of the material and treatment of the results obtained and interpretation. The pre-analysis focuses on organizing the material to be analyzed and in formulating ideas for the development of indicators for the final interpretation. In the exploration of the material, the in-depth reading of all the material to be analyzed is carried out, giving

organization to the lines. The third stage consists of the treatment of the obtained results and interpretation. Here, there are interpretations and conclusions, as well as the correlation with the theoretical reference, expanding, in this way, the knowledge about the subject researched [12].

Results and Discussion

After the speeches of participants and content analysis, a category emerged: Overview of organ donation in the studied reality.

Overview of organ donation in the studied reality

Although organ and tissue transplantation is a safe and effective therapeutic alternative in the treatment of various diseases, as well as providing improvements in the patient's quality of life, there is a race against time to make the potential donor an effective donor, considering all the hemodynamic/physiological instability that the ME causes in the organism. In order to have proper maintenance of the potential donor it takes dedication and competence of the entire team responsible for patient care [13].

Research carried out in Brazil shows that the main reasons for donation and transplantation of organs and tissues with the deceased donor are not due to the lack of knowledge related to the concept of ME, either by the population or by the health professionals themselves, as well as, structure inadequacy of the hospitals for the diagnosis of ME and assistance to the Potential Donor (PD), family resistance to authorize donation, underreporting of PDs, logistic problems and medical contraindication [14].

Health professionals, who are key players in the success or failure of this process, need to identify the potential organ donors, as well as understand and know how the whole procedure and the concept of ME itself are given, favoring and rethinking its practices in the health sector and the quality of life of the patient [15].

In this context, for the professionals interviewed, the concept of brain death consists of the definitive stop of brain activity, being irreversible.

Brain death is the death of the patient [...] it is irreversible.

E1.

It is brain death, it is the definitive stop of brain activity, [...] it is death itself.

E4.

In brain death, the patient has no chance of returning, of leaving that condition.

E6.

Brain death is irreversible, although there is still a heart rate, that is why is so difficult for the family to accept that the patient is dead.

E7.

Death is preceded by cardiorespiratory arrest from the biological point of view. But the technological advances in medicine, especially the advent of artificial respirators, have allowed measures to prolong the vital functions of these patients. Therefore, a reliable concept was necessary for the diagnostic determination of ME [16].

After years of discussions on this topic, in 1981 in the United States, a presidential commission was established, that defined death as the irreversible cessation of circulatory and respiratory functions or the irreversible cessation of brain function. These criteria are now used to diagnose ME [17].

In Brazil, these criteria were legally adopted in 1997, through Resolution No. 1,480/97 of the Federal Council of Medicine (CFM), which defines ME as "the total and irreversible cessation of brain functions, of known cause and indisputably established", constituting death for clinical, legal and/or social purposes. This normalization allowed the donation of organs and the requirement of intensive care to keep the patient as a potential donor

[18, 19]. Thus, the concept of encephalic death of the interviewees shows the level of knowledge of the professionals about the subject involved, who answered correctly from the theoretical-scientific point of view.

In the process of organ recruitment and donation, the main difference between living and dying is the donor's neurological assessment, since individuals with brain death provide their organs to replace those ineffective of another patient. In this sense, it is observed that despite the technological advance in this area, there are still differences as to the fine line that separates life and death, favoring the bioethical conflicts that affect donors, relatives, receptors, and the health professionals themselves [20].

Death exposes the human condition to vulnerability, characterizing both what man has as universal and as singular. Dying can also be understood as a social process that is present in daily life and that is still happening in large dimensions in health institutions. Thus, death can still be considered institutionalized and medicalized, especially nowadays, when hospitals have high-tech devices that provide for the maintenance of the patient's body, regardless of the quality of life [21].

Technological advances in health field have transformed the paradigm in question, allowing the extension of life through advanced techniques of assistance to the patient and potential donor, seeking to maintain the useful life of organs to allow them to be transplanted [22].

The assertiveness of care and procedures with the potential donor is essential for the success of transplants in our country. Actions that contribute to an effective increase in the number of potential donors, viability and utilization of organs and tissues will always be crucial, in order to minimize the waiting list for transplantation and, consequently, mortality rates [23].

According to the interviewed team, several care needs to be taken in the search of the potential

donor, both with regard to the patient's own procedures, and the family approach.

Maintain control of hemodynamics, administration of vasoactive drugs, give ventilator support to the patient, in addition to keeping him warm.
E2.

Maintaining blood pressure and proper oxygenation.
E3.

Maintain minimal enteral feeding to avoid bacterial location.
E4.

[...] Rational and humanized approach to the family [...].
E7.

The interviewees expressed knowledge about the maintenance of the potential donor, the examinations and established care, the importance of avoiding the rotation of the team members, in view of the greater contact with the patient and better form of care from the specific knowledge and needs, as well as participation in updating and training.

The accomplishment of several laboratory examinations must be according to each protocol, of these the exams most requested are: blood typing; hemogram; platelets; urea; creatinine; sodium; potassium; chlorine; magnesium; calcium; phosphorus; TGO; TGP; total bilirubin and fractions; coagulation tests; complete serology and arterial blood gas [24].

Other care are of extreme relevance for the maintenance of the potential donor, for example: head elevation by 30°, change of decubitus, rigorous maintenance of aseptic control, blood pressure check, patient warm up, temperature observation, regular heart rate and oximetry, maintenance of artificial ventilation, aspiration of pulmonary secretions, catheter care, maintenance of body temperature

between 35 and 36°C, infusion of heated crystalloid solutions and maintenance of the enteral diet [25]. The multidisciplinary team should be alert to any clotting and/or hydroelectrolytic disorders, as well as administering all vasoactive drugs in an infusion pump [26].

When questioned about the evaluation of the level of preparation of the team in the specific procedures, there was a diversity of expressions, some interviewees evaluated that the level of preparation of the team was good, since there has been funding obtained by the Intra Hospital Commission for Donation of Organs and Tissue for Transplants (CI-HDOTT).

Other professionals evaluated as regular, since they pointed out that the team was not one hundred percent prepared, since the training performed a few years ago did not cover everyone, leaving out nursing technicians and ICU nurses, who are usually the ones who deal most with these patients. Finally, other professionals evaluated that the level of preparation of the team is very low, from the doctor to the nursing team, because for the majority, organ donation is "a strange thing".

The ME triggers endocrine, metabolic and hemodynamic changes that lead to multiple organ failure, determining that health professionals have a good maintenance of vital functions to ensure hemodynamic stability and graft quality, especially nursing professionals, who are responsible for surveillance and maintenance of all hemodynamic phenomena of the potential donor [27].

According to what has been stated by some interviewees, the nursing professional is the one who has more proximity to this patient, consequently, he/she assumes greater responsibility for the care provided, being undeniable his/her contribution to the success of the transplant, since he/she performs a differentiated function according to the professional training, position in the institution and practice scenario. In Brazil, there are few higher education institutions that provide training in this area of

knowledge. It is important that nurses involved in transplants rethink their practice, seeking ways to improve nursing care [28].

According to the professionals, there are many difficulties to provide adequate care to the potential donor, among them, lack of early diagnosis, lack of staff preparation, lack of material resources and inadequate infrastructure. In addition to the resistance of medical professionals and nursing in accepting brain death, which delays the servicing of organs for possible donation.

Some factors that make it difficult to care for the patient with brain death are: the lack of a continuing education policy for health professionals regarding the donation-transplantation process and all the consequences resulting from non-knowledge of the disease, non-notification of patients with a diagnosis of brain death to the Centers of Notification, Collection and Distribution of Organs and family refusal [4].

Human resources [...] and material resources as well, are some of the major problems we face today. [...]

E1.

The difficulty of diagnosing early [...] besides the resistance of the medical and nursing professionals in accepting the fact.

E3.

Team ignorance, inadequate infrastructure, absence of EEG in scope [...]

E4.

In contrast to reality, all the mentioned difficulties are found in the service, however, none of the subjects expressed themselves in relation to one of the most cited realities in Brazil, which is the family resistance. The professionals raised the difficulty in acting before the suffering of the relatives, reporting that it is the most difficult moment for the organ capture and that it is of extreme relevance

that there is a preparation of the loved ones on the diagnosis of brain death and the possible donation of organs.

It is a stressful situation for the family to receive the news from ME because, for many, there is a lack of knowledge about the state of the patient in the face of this diagnosis. The lack of enlightenment gives the family a hope in recovering the patient's clinical condition, besides the situation of the body still keep warm and the heart beating, which generates high expectations that the person can be alive, even with the presented evidence [29].

As for the aspects of care, concerning what was said by the interviewees, the good maintenance of the patient is essential, since it will allow the viability of the organs. However, the handling of the potential donor is often not adequately performed. It is crucial that the care measures are quick and aggressive to ensure the effectiveness of the care provided [30].

The answers regarding solvency to keep organs viable to donation in the care of the potential donor brought divergent opinions, while some defend that yes, that there is assertiveness, others say no. Some professionals reported that there is no assertiveness in this service, since they lack medications, adequate monitoring, specific training of the team, besides being a work that must be carried out in the long term and that requires that all the professionals are involved, however, many times, these are not present even in the first visits.

On the other hand, other professionals reported certain difficulties encountered in the service, such as the fact that there were no organ recruitment staff at the institution and the Electroencephalogram (EEG) equipment was broken, with no provision for repair, but they nevertheless stated that when the protocol is open and completed in a timely manner, there is a solvency of the problem, and although there have been few cases of positive funding thanks to the multidisciplinary team, there has been progress.

Nowadays, there is a big waiting list for the donation and often the population is uninformed on the subject due to lack of disclosure. The Ministry of Health has implemented strategies to increase donations of organs and tissues, such as improving infrastructure, especially training staff to make contact with relatives of possible donors, financial incentives to hospitals and awareness of society by annual campaigns to encourage the donation of organs and tissues [31].

Brazil has the largest public transplantation program in the world, with a significant increase in the number of transplants, although still insufficient, the rate obtained is of 5.4 donors per million inhabitants per year [32]. However, the training strategies adopted have been insufficient to remedy the existing deficiencies, from the first stage of the process, from the diagnosis of brain death to the family approach, until the transplantation [28].

In addition, there is precariousness in the structure of the Brazilian health system, evidenced by overcrowding in the emergency units, patients bedridden in corridors, prolonged waiting time for care, stress and difficulty of articulation in the care team and lack of ICU beds, as well as equipment, materials and trained human resources. What compromises not only patient care, but also all actions for the development of the organ donation process [14].

Conclusions

Several difficulties have been encountered, as the lack of human and material resources generating impasses in the specific care of the potential organ donor and the lack of provision of continuing education.

The objectives of the research were partially achieved, since the intensive care team of the studied Hospital did not perform all necessary care for the adequate maintenance of the potential organ donor, which made it impossible to fully evaluate

this caring. It can be affirmed that there is a fragmentation of the service regarding the maintenance of the potential donor, either due to a lack of material resources, the few professionals working in the area and/or the need for continuous training, which is a challenge for the public power.

The multidisciplinary team has an important role in the entire process of organ harvesting, from diagnosis of brain death to donor organ transplantation, in addition to raising awareness and clarifying possible family doubts. However, in the health establishment itself, this importance is not so much seen due to several other problems and deficiencies in the entire public service network, such as the lack of basic materials and equipment for health care.

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