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ABSTRACT

The present work seeks to analyze the importance of the nurse in the performance of professional practice related to the patient diagnosed with brain death, observing the maintenance of care and the consent of family members. This study aims to provide and make the reader aware of the knowledge of the diagnosis of brain death along with the importance of the attribution of the nursing team in the face of the patient in brain death and in the care of their family members at the time of loss, aiming at the importance of organ donation.

Keywords: Nursing, brain death, nurse's role.

1 INTRODUCTION

Brain death (BD) is the legal definition of death and is permanent, irreversible and without any possibility of cure. The brain is formed by brain, cerebellum and brainstem, responding for the neurological actions of the body. And when the brain stops working, it automatically disrupts its conscious activities, streams of consciousness, and even its basic activities that intertwine with the functioning of the body, as the brain controls vital functions. In brain death any and all functions cease to exist.

Because it is a very delicate situation, because it involves a life, a human being and so that there is no error in the diagnosis that in this case is a definitive diagnosis is of great importance and necessary to follow protocols that were created and are established by the Ministry of Health. According to FIGUEIREDO et al 2020, "This patient, when there are no contraindications, is considered a potential organ donor and can become an effective donor."

Beginning in 1964, the organ transplantation process in Brazil took place through a kidney transplant at the Hospital dos Servidores in Rio de Janeiro, and has been gaining momentum over the years, even leaving the country as a world reference in transplants in 2018, with a total of 96% of all procedures financed by SUS. (MOREIRA et al 2022).

Even though Brazil is the 2nd largest transplanter in the world, the growth is still not enough and the pandemic still counted negatively, according to data from the Ministry of Health, in 2019

23,360 were performed, but from March to December 2020 13,042 transplants were performed throughout the country. In 2020, the waiting list for active patients waiting for an organ or tissue transplant was 43,643, with the number of effective donors being 3,330. (FURTADO, et al., 2021).

Transplant procedures can occur in three ways: autoplasmic, heterologous, and heteroplasmic. This third is in two ways: *intervivo* or when there is a diagnosis of brain death (MOREIRA et al 2022). The polytraumatized patient or affected by stroke can aggravate his health condition, evolving to brain death, becoming a possible organ donor.

Brain death is characterized as a condition in which the patient loses all functions of the brain, being complete and irreversible, keeping in operation the breathing and the heartbeat. (RIBEIRO, et al., 2020).

Many factors hinder this donation process and may influence its non-effectiveness, such as the lack of information on the subject, the lack of dialogue between the family and the lack of preparation of the nursing team. (XAVIER, et al., 2021).

The nurse acts on several fronts, being part of the Intra-Hospital Commission for Organ and Tissue Donation for Transplantation (CIHDOTT), in which he participates in the interview with the family of the potential donor, in an ethical, moral and legal way, also acting in nursing care, planning a care to a lifeless being, with considerable hemodynamic changes, aiming at the preservation of viable organs for transplantation (KNIHS N. S, 2020), and it is necessary to obtain a vast knowledge and interaction of the multidisciplinary team ensuring that the care developed in this process can become effective, safe and with quality for a future recipient.

Taking into consideration the current scenario about the role of the nursing team in the care of patients in brain death, this study is motivated to make the reader aware of the importance of the nursing team in the process of caring for and keeping this patient fit to be a potential organ donor with the maintenance of all body homeostasis. Evidencing the attribution of the nurse increasingly important in the care process, not limited from birth to death, because much can be done after the diagnosis of brain death. The role of the nurse becomes even more evident and important, because this patient becomes a potential organ donor, in which other lives can be benefited. However, according to Furtado,

"[...] During the pandemic period, we obtained a reduction of 53.83% in the performance of transplants. Therefore, it is necessary to return to talk about the importance of this procedure and the professionals who work in it" (FURTADO et al, 2021).

The nurse acts on several fronts in this process, being part of the Intra-hospital Commission for Organ and Tissue Donation for Transplants (CIHDOTT), which is composed of a multidisciplinary team that needs to be aligned and well trained with regard to the diagnosis, capture and implantation of these organs. The nurse has the function of assisting this patient diagnosed with brain death, playing

his role with excellence to maintain these vital organs so that this capture is feasible and, the third role, no less important to be studied is to act face to face with the relatives of this patient diagnosed with brain death, for the moment that the theme of organ harvesting is addressed is the same moment of mourning of this family.

2 METHODOLOGIES

This is a study that uses the systematic integrative literature review, given the need to ensure a practice based on professional safety, based on scientific evidence.

According to SOUSA et al (2017), the integrative review has been used in recent years in the health field, allowing to give visibility to the contribution of nursing to the improvement of care delivery. Constituting a comprehensive body of knowledge, of methodological rigor, it is called integrative because it provides broad information about a subject/problem.

By facilitating the incorporation of evidence, it allows to expedite the transfer of new knowledge to clinical practice, synthesizing the results of relevant and globally known research studies.

The stages of the course of this type of research were followed: elaboration of the review question, search and selection of the primary studies, extraction of data from the studies, critical evaluation of the primary studies included in the review, synthesis of the results of the review and presentation of the method (MENDES, et al, 2019).

After following these steps, the question that guides the study was given by: "What is the role of nursing in the process of organ donation with the potential donor and the bereaved family?"

For the preparation of this work were used materials found in the databases of Google Scholar, Virtual Health Library (VHL) and SCIELO through the descriptors: "family", "nursing", "organ donation", "systematization of care", "brain death".

Through the theme applied in the databases, 60 articles containing such descriptors were found simultaneously, among these, 43 articles were excluded, containing articles in duplicates and articles with different contexts, not meeting the objectives of the study in question.

2.1 JUSTIFICATION

Taking into consideration the current scenario on the role of the nursing team in the care of patients in BD, this study is motivated to make the reader aware of the importance of the nursing team in the process of caring for and keeping this patient fit to be a potential organ donor such as: body temperature, hemodynamic support, ventilatory support, metabolic endocrine support. Hematological support and infectious aspects.

3 LITERATURE REVIEW

3.1 DEFINITION OF BRAIN DEATH AND THE ROLE OF THE NURSE IN RELATION TO THIS PATIENT.

Brain death is characterized as a condition in which the patient loses all functions of the brain, including the brainstem, and this loss is complete and irreversible, keeping breathing and heartbeat functioning (RIBEIRO et al., 2020).

The main causes of brain death are: stroke and head trauma (TBI), which are various forms of trauma to the skull, including falls and firearm injuries (SINDEAUX et al, 2021)

The identification and confirmation of brain death in most hospitals are defined in the ICU and is done in two stages, which should be performed with 6 hours of difference between one and the other. One of them is the clinical diagnosis and the other is the performance of complementary graphic exams (AREDES et al., 2018).

These scans serve to look for any absence of brain stimulation, such as coma, cough reflexes, and breathing, as is done with the apnea test. Therefore, both in ethical, scientific and moral aspects, a patient with brain death is a dead patient. (SINDEAUX et al., 2021).

In relation to the tests performed to confirm the diagnosis of brain death, according to RESOLUTION No. 2,173, OF NOVEMBER 23, 2017, 2 trained, experienced and specialized physicians with experience of at least 1 year will be considered mandatory, in addition to having followed at least 10 determinations of brain death or training course and not being able to be part of a team of organ removal and transplants, You cannot also be part of the same team, and one of the tests must be performed by a neurologist, neurosurgeon, intensive care physician or emergency physician.

Talking about brain death for the family still generates many difficulties due to lack of knowledge and lack of preparation of the teams, because the family understands that their family member is still "breathing" and with a "beating heart" (RIBEIRO et al., 2020).

The nurse has an important role in facing this great challenge of having to be present in all stages of this process of caring for this patient, because even if the patient is diagnosed with brain death can be considered as a generator of life through organ donation. It is of great importance for nurses to have scientific and theoretical knowledge to develop the optimization of the steps required in this case (MAGALHÃES APL, et al, 2018).

"It gives the nurse to evaluate, plan, execute, coordinate and supervise the nursing procedures performed on the brain-dead patient and a possible organ and tissue donor, since he is responsible for his team" (COFEN, 2004).

Nurses incorporate scientific knowledge and attitudes in their care practice to provide quality care in order to maintain the stability of patients in brain death. The professionals emphasize the

responsibility, dedication, and professional care in all activities to preserve the hemodynamic conditions favorable to a possible transplant. Performing the care to the patient in brain death with dignity and respect, seeking a professional attitude providing better care (MAGALHÃES APL, et al, 2018).

The situation of brain death is defined as a complex process that triggers complications that can be harmful to the potential donor. Due to endocrine, metabolic and hemodynamic changes, multiple organ failure may occur, which may make donations impossible. Thus, a nursing team trained to detect probable complications, the nurse must have scientific knowledge and firmness in their care practice to provide quality care that maintains the stability of the potential donor of organs and tissues (CAVALCANTI et al 2021).

Thus, among the vital interventions as primordial in the conservation of the patient in brain death stand out the following: corneal hydration, temperature monitoring, control of vital signs, electrolyte and blood gas measurements, two blood cultures and one urine culture at the beginning of the protocol. With proper hemodynamic and pathophysiological controls, it is possible to avoid complications such as arrhythmias, cardiac dysfunctions and coagulopathies (TOLFO, et al., 2018).

It is essential to establish an efficient maintenance, an adequate hemodynamic and physiological preservation of the patient in brain death, so it is possible to guarantee the effectiveness of the donation for such a picture. The nurse in the practices of care for patients in brain death has been advancing, so that it has become indispensable in the process of analogy in a team with nursing (MAGALHÃES, et al, 2018).

3.2 THE IMPORTANCE OF ORGAN DONATION IN THE FACE OF BRAIN DEATH

Worldwide due to poor diet and poor lifestyle led by the population, the number of chronic diseases has become greater, thus increasing the need for some organ transplants, causing each year the transplant queue to increase more and more (SOUZA et al., 2022).

Understanding the importance of organ donation begins when one understands the concept of brain death, in which the individual will not come back to life, thus understanding that donation can save lives and even cure diseases (FERREIRA, et al., 2018).

A patient with brain death is a dead patient, there is no way to come back to life, so a single donor can save up to 10 lives. Everything is governed by laws, respecting the body and the decision of the family. Organ donation is an act of love, compassion and solidarity with others and a new opportunity for a new beginning (MEDEIROS et al., 2019).

Some people are depressed due to diseases and a transplant can help improve the lives of these people, who may have new perspectives on life and a new opportunity to live well, and even without pain, thus contributing to the life of others. (SOUZA et al., 2022).

3.3 DEFINE THE IMPORTANCE OF PSYCHOLOGICAL SUPPORT TO THE PATIENT'S FAMILY MEMBERS

After a closure of the Brain Death protocol, the nurse together with the nursing team has a significant role in the conduct towards the patients' families. Thus, the family approach is affected with the purpose of a probable organ donation. And this is a moment of great fragility, considering the great emotional impact that can cause the reluctance of accepting the closed diagnosis of your loved one. Knowledge about BD on the part of family members is still very scarce and therefore, it is necessary to offer emotional assistance in addition to offering information about the whole process. Thus, the nurse assumes the role of educator in order to optimize the improvement in the relationship between team, family and patient (CAVALCANTI et al 2021).

It is worth mentioning that it still perplexes the family to understand, even after all the guidance of the diagnosis of brain death, that their family member may present heartbeat, blood pressure, breathing and body temperature, raising more doubts and mistrust about the diagnosis. In summary, nurses need to be provided with explanations in clear and reliable ways regarding the entire process of closing the brain death protocol and maintaining the patient's body until a possible organ donation, if there is an authorization by family members (CAVALCANTI et al, 2021).

It is noteworthy that for family members to experience the diagnosis of brain death of a loved one is a stressful situation and great suffering, either because of the lack of necessary clarification about the patient's state or even because they feel doubts about the diagnosis of brain death. Many times, the lack of information makes the family have hope in the recovery of the clinical picture, being an indication that the person may be alive with evidence presented, it is emphasized the importance of clarifying to the family about the doubts about the diagnosis of brain death (SANTOS et al., 2012).

4 RESULTS AND DISCUSSIONS

RIBEIRO et al., 2020 states that, "Brain death is characterized as a condition in which the patient loses all brain functions, including the brainstem, and this loss is complete and irreversible", but the topic of brain death is complex and involves ethical, legal and cultural issues. Although the definition of brain death is widely accepted in the medical community, there is still debate around its interpretation and application.

One of the main issues surrounding brain death is the precise definition of the diagnostic criterion. Although there are guidelines and protocols for the diagnosis of brain death, their interpretation may be affected by factors such as the experience and skill of the examiner. In addition, some question whether the absence of brain electrical activity is a sufficient criterion for declaring brain death.

The period from 2012 to 2022 was used as reference, with the databases of Google scholar, Virtual Health Library (VHL) and SCIELO. There are a total of 17 articles left for the development of this study, as shown in the table below.

Table 01 - Table of the search performed in the databases, 2022.

YEAR	THEME	AUTHOR	GOAL
2020	Brain death and the organ donation process: attention to the family member	RIBEIRO, K.R.A. et al.	Discuss the family reaction to the process of communication of brain death and the possible donation of organs
2021	The role of nurses in cases of brain death and organ and tissue donation	FURTADO, L. B. S. et al.	To describe the nurse's performance in the process of brain death and in the donation of organs and tissues.
2018	Life-saving death: complexities of medical care for patients with suspected brain death	AREDES, J. S. et al.	To understand how physicians in the largest emergency room in a Brazilian metropolis guide the care of critically ill patients with suspected brain death and potential organ donors
2022	Opinions of health students on organ and tissue donation for transplantation	SOUZA, D. M. et al.	To analyze the opinions of students of health courses on organ and tissue donation for transplantation
2018	Organ donation after brain death: the importance of nursing as a disseminator of information to the population	FERREIRA, M. C. P. et al.	To highlight the role of nursing in the process of disseminating information about brain death and the process of organ and tissue donation for transplants
2019	Organ donation campaign: an experience report	MEDEIROS, S. S. D. E. et al.	To report the experience of the Organ Donation Campaign as an innovative and transformative method, important to raise awareness among the population and encourage organ donation.
2020	Nursing team in organ donation: integrative literature review	FIGUEIREDO, A. F., MARCONATO A. M. P., SAIDEL M. G. B..	to identify actions and activities of the nursing team directed to the family of the potential organ donor in brain death, based on an integrative literature review.
2020	Obtaining tissues and organs: nurses' potentiating actions in the light of ecosystem thinking	TOLFO, F. et al.	to analyze, in the light of ecosystem thinking, the actions of nurses that stimulate the potential to increase organ and tissue donation rates.

2020	Management in the care of nurses in the process of organ and tissue donation	KNIHS, N. S. et al	identify the activities developed by nurses in the management of care in the process organ and tissue donation.
2020	Public policy on organ transplantation in Brazil	MOREIRA, D.L. S. et al	To analyze the public policies of transplantation implemented in Brazil, identifying the strategies that deal with the increase in the rate of donors and the factors that prevent donation in Brazil.
2018	Meanings of nursing care to patients with brain death potential donors	MAGELLAN, A. L. P.	To understand the meanings of care for patients in brain death as a potential donor for nurses, and to build a theoretical model.
2019	Use of bibliographic reference manager in the selection of primary studies in integrative review	Mendes KDS, Silveira RCCP, Galvao CM	present the use of the EndNote bibliographic reference manager (as a tool to assist in the construction of database and selection of primary studies in conducting integrative review.
2021	Nursing care provided to potential organ donors in brain death: an integrative review	SINDEAUX, Ana Cássia Alcântara et al	To know the nursing care provided to the potential organ donor in brain death.
2021	Brain death: nurses' knowledge and obstacles about care	CAVALCANTI et al	The precautions in the maintenance of the potential donor in the face of brain death need to be known to all health professionals, especially the nursing team, since nurses assume the responsibility of care directly with these patients
2012	Communication of bad news: ethical dilemmas in the face of the situation of brain death	SANTOS, M. J. et al	Communicating the diagnosis of brain death is a difficult task
2021	Comparison between the number of solid organ transplants and Fabrics made in Brazil during the first half of 2019 and 2020	XAVIER, J. M. R. P. et al	To compare transplant data in Brazil in order to analyze the impact of the pandemic of COVID-19 in organ and tissue transplants in the country.
2017	THE METHODOLOGY OF INTEGRATIVE REVIEW OF THE NURSING LITERATURE	SOUSA, L. M. et al.	o presents the general concepts and steps for the elaboration of an integrative literature review, based on the latest scientific evidence

The family needs to be well instructed in the processes followed with the patient, so that they have time to understand about the diagnosis and to discuss the donation.

At the time of loss, families cannot understand about brain death and contemplate about the idea of organ donation, so it is very important that the family receives assistance before and after the diagnosis.

Good care and experience can stimulate the family to accept the diagnosis and perhaps the possible donation of organs, showing the goal of giving a new life to another person, and giving him the knowledge that the picture of his loved one is irreversible.

In confirmation with what was described in the paragraph above, SANTOS (2012), "emphasizes that for family members to experience the diagnosis of brain death of a loved one is a stressful situation and great suffering, either by the lack of necessary clarifications about the patient's state or even by feeling doubts about the diagnosis of brain death".

Understanding the family's suffering, the nursing team must interact and respect the family decision, whether it is positive or not, and pay attention to the care not only for the donation, but also in the care and assistance with the whole family, in their moment of sadness, loss and suffering.

In confirmation with what was said by CAVALCANTI et al 2021, which describes that "It is worth mentioning that it still causes perplexity to the family to understand, even after all the guidance the diagnosis of brain death ...", MAGALHÃES 2018 says that "After a closure of the Brain Death protocol, the nurse together with the nursing team has a significant role in conducts towards the patients' families. Thus, the family approach is affected with the purpose of a probable organ donation. And this is a very fragile time, considering the great emotional impact that can cause the reluctance to accept the closed diagnosis of your loved one."

With what it says above we can say that dealing with death is never easy, so the family needs time to think and assimilate death and bestowal. However, many times to a refusal regarding the donation, starting with the lack of assistance and explanations at the time of the interview, and many times the place where these interviews are done are not favorable and cozy, which ends up hindering the time of acceptance. Among other family refusals are the lack of understanding of the diagnosis and religious beliefs, which make it even more difficult to accept organ donation.

The understanding of the diagnosis, the answers, explanations and clear and objective conditions provided by the nursing team, help the family members to understand the importance of donation, of helping others, making this family feel proud, and even compensated for helping.

According to MAGALHÃES (2018), "The nurse has an important role in facing this great challenge of having to be present in all stages of this process of caring for this patient...", because the nurse must always be positioning himself with the family members regarding the patient's diagnosis. Even though the physician is responsible for attesting to brain death, it is the nurse who has the greatest importance, being in the maintenance and care of the organs and with the visibility for the other patients who are on the waiting list.

The nurse is very careful to guide, inform and clarify which organs can be donated, how the donation process occurs, and also explain that the donation has no cost, it is all on account of the

Unified Health System (SUS), and even then, the family can accept or not the donation. That is why such information on the part of the nurse is so important, so that the family sees that the donation process is important and that it can help in the improvement of several other lives, since a donor can donate up to 6 organs.

The nurse should always keep the family as close as possible to the patient's reality, offering information on the process of ascertaining brain death, and should be very sensitive and empathetic to the pain of family members, obtaining a bond and offering emotional assistance.

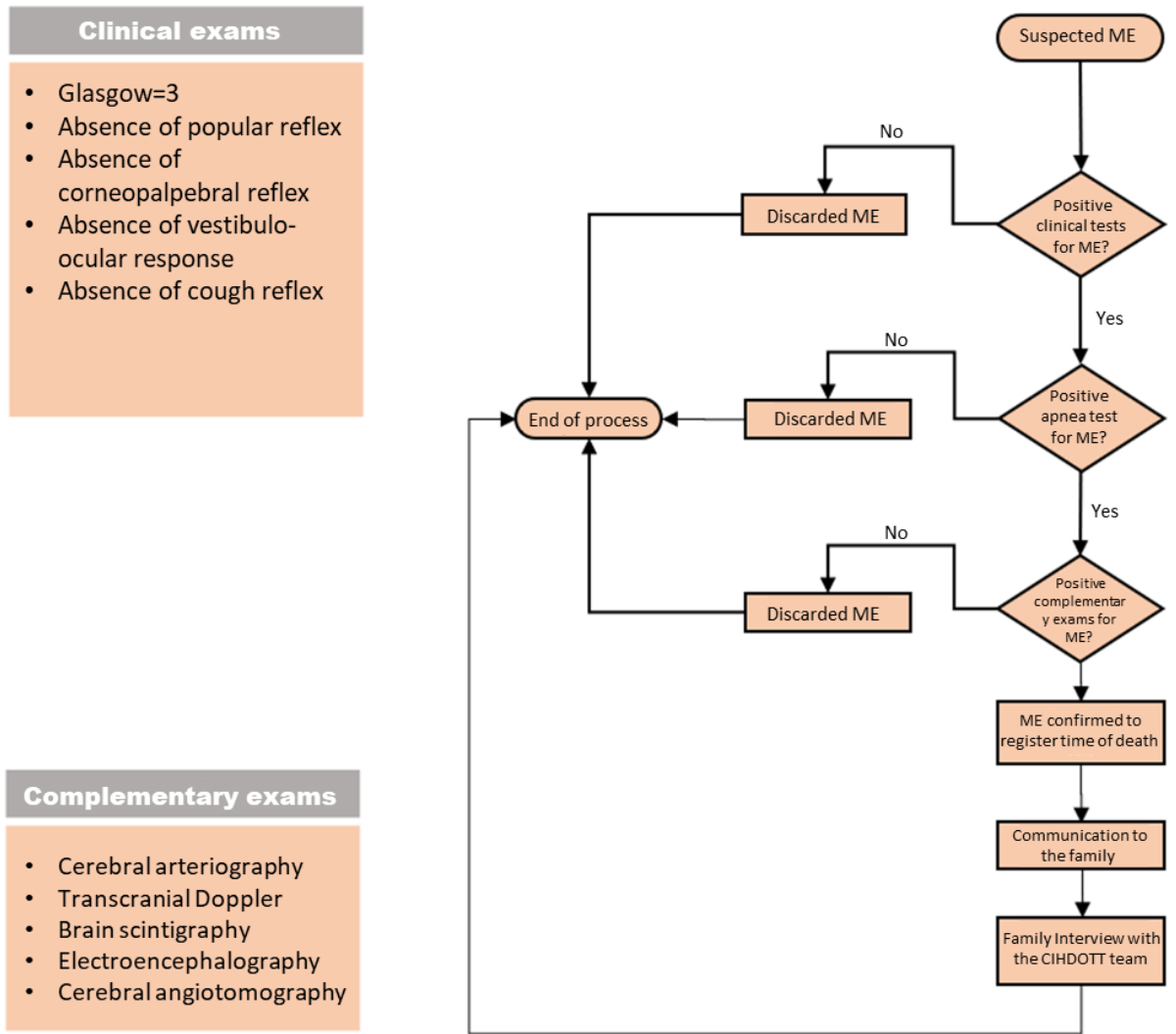
5 FINAL CONSIDERATIONS

The present study highlights the attribution of the nurse who is increasingly important in the care process, not limited to birth to death, since much can be done after the diagnosis of brain death.

The role of the nurse becomes even more evident and important, because this patient becomes a potential organ donor, in which other lives can be benefited. Therefore, the theme Brain death still leaves many gaps open with regard to the social, family and even among health professionals, requiring more and more studies and publications on the subject, since The diagnosis of brain death is not and will never be something easy to understand or accept, and the nurse has been standing out more and more in this context, contributing effectively so that a potential donor becomes an effective donor and, for this, needs scientific and technical knowledge for a humanistic action in a moment of great pain for the bereaved family members.

ATTACHMENT

Figure 1 - National brain death protocol flowchart



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