Articles from originals

Bioethical Analysis of brain death diagnosis, and organs donation in reference public hospital in the Federal District

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Abstract

Bioethical analysis of brain death diagnosis, and organs donation in a reference public hospital in the Federal District, Brazil

The present study consists of a bioethical analysis of brain death diagnosis in the context of obtaining organs for transplantation in a public hospital in the Federal District of Brazil. The following aspects were analyzed: physicians' knowledge concerning the criteria established by Resolution number 1,480/97 from the Federal Council of Medicine; the difficulties in observing these criteria; the physicians' view on the effectiveness and security of brain death diagnosis; the structure offered by the medical center; and the complementary exams considered safe for the diagnosis under debate. The methodological procedure comprised two moments: 1) the analysis of documents - Brain Death Declaration Forms (BDDF) and Notifications of Potential Donors (NPD) - issued from January/2000 to September/2004; and 2) application and interpretation of questionnaires answered by thirty physicians and residents. The study showed low efficiency of the analyzed hospital in obtaining organs for transplantation. It also showed that the hospital is not prepared to determine brain death with effectiveness and safety, and that brain electroencephalography is the safest complementary exam for that diagnosis.

Key words: Bioethics. Brain death diagnosis. Organ transplantation.

Approval CEP SES-DF no. 62/04

Organs transplants are part of medical daily routine in the 20th Century. If, in one hand, they bring hope for better quality of life to thousands people, in the other hand, they present as major problem due to difficulties faced by those who, dramatically, need organs in order to continue living.

There is a tireless search to develop new transplant techniques, and for the ellaboration of standards that are more suitable, which enables maintenance of human life with quality, and allowing for his return to previous *status quo. Consequently, organs transplant, in the past thirty years, had a remarkable progress due to greater biological*

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knowledge, to new surgical techniques, and use of immunosuppressive drugs [1].

In Brazil, the legislation in force allows for free disposition of tissues, organs and parts of the human body, in life or *post mortem*, for transplantation [2]. In case of donation between living people, its effectiveness can be authorized only after undertaking, in donor, routine exams for infection diagnosis and infestation screening. Living donor is any citizen over 21 yers old and capable, within the terms of law, who can donate organ or tissue without compromising his health or vital capabilities.

Post mortem withdraw of organs aimed for transplant shall be preceded indispensably of brain death diagnosis, verified and recorded by two physicians non-participants in the removal and transplantation teams through use of clinical and technological criteria defined by specific resolution set by the Federal Council of Medicine (CFM). The removal of organ or tissue of donator-corpse , in its turn, will depend on spouse or relative's authorization, following the direct or collateral successor line until second degree inclusively, signed in documents subscribed by two witnesses who are present at death verification [2,3,4].

Organs will be targeted to patients who need transplant, and are waiting for their turn in a single list, defined by the Transplant Central of each state health secretariat and controlled by the Public Attorney's Office.

There are several questionings surrounding capture and distribution of organs and tissues for transplants. However, there are aspects related to this procedure that deserve special attention, like used criteria by physician for the brain death diagnosis, which is the object of present work.

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Ethical dilemmas and the need to get donators for transplants required setting clinical and technological criteria for verification of brain death foreseen, currently, in Brazil, in CFM Resolution no. 1,480, of August 21, 1997 [5]. Lack of brain activity, including brainstem, bases these criteria. They were disciplined by the Council using it attribution conferred[6], and regulated by Decree no. 44,045/58 ,by Law no. 3,268/57 and, still, in attention to the foreseen in Article 3 of Law 9,434/97 [2], which deals with removal of organs, tissues and parts of human body for transplantation.

Physicians should follow strictly the criteria foreseen in CFM Resolution no. 1,480/97 [5] , not only to dismiss doubts regarding certification of brain death occurrence as well as to safeguard them before society and the State, in view of the possibility of becoming target to administrative processes and legal suits when they may be charged responsibility for the death.

The purpose of present study is to undertake a bioethical analysis of brain death diagnosis and organs donation, having as reference a tertiary public hospital integrated to the National Transplant System, Base Hospital of the Federal District (HBDF). It aims at verifying physicians' perception regarding such diagnosis safety and efficacy, in accordance to criteria set forth in CFM Resolution no. 1,480/97 [5].

Evolution of brain death concept and the setting of criteria to determine brain death

Death is a polemic issue within the scope of medicine, even more so in view evolution that neurologic therapeutics achieve in the past years. However, it is always difficult to be accurate, despite all researches, about the exact timing of its occurrence since it does not constitute an instantaneous fact, but a sequence of gradually processed phenomena

in several organs and life maintenance systems.

The emergence of artificial means of maintenance and support to life made it even more difficult the accurate definition of death. The establishment of criteria for determination of brain death, in its turn, gradually acquired greater importance in light of standards set to carry out transplants. All this gave opportunity to most diverse debates about the issue seeking uniformization of concepts [8].

The Council for International Organizations of Medical Sciences, jointly established by the World Health Organization (WHO) and the United Nations Educational, Scientific and Cultural Organization (Unesco) met in Geneva, in 1968, and set criteria about "brain" death (currently denominated encephalic death) that were unanimously approved by all participant countries. The declaration produced is based on: (...) *what one should understand by donator's death in transplant cases*: *1. Loss of all sense of ambience; 2. Total debility of muscles; 3. Spontaneous paralysis of breathing; 4.Colapse of blood pressure in the moment that it is not kept artificially anymore; 5. Trait absolutely linear of the electroencephalogram* [8].

Several scientific events were undertaken seeking to elaborate documents capable to characterize brain death. Such discussions, most of the time, have as reference the original text issued in 1968 by the Harvard Committee [9], which began to be used in many countries. Some prefer a previous declaration, The Human Tissue Act, of 1961, instituted in England [8]. The first protocol on encephalic death, in Brazil, was approved by the Rio Grande do Sul Regional Council of Medicine, in 1987. Later, CFM issued, in August 8, 1991, the Resolution no. 1,346/91[10], establishing criteria to be adopted in Brazilian hospitals since then.

With issuance of Law no. 9,434/97 [2], CFM issued another resolution, that of no. 1,480/97, conforming to the new scientific and technological knowledge, since transplant undertaking imposed specific criteria in determining death, in view of required integral, feasible, in good conditions, perfused organs, along with new techniques of rejection control.

The issue is complex as one would suppose, becoming necessary to consider several factors for the establishment of criteria, since no technological process has shown, isolated, integrally satisfying, to accurately define the moment of death [8]. Criteria for certification of encephalic death differentiate case by case, and they generate questionings. Additionally, physicians experience constantly major dilemmas in the decision of suspending reanimation efforts in a patient, since diagnosis and certification of encephalic death must be absolutely safe.

It is necessary, in order to understand the clinical parameter for encephalic death, to know the coma concept. This word comes from the Greek

koma (similar to sleep) and it characterizes by inadequate responses or lack of external stimuli and/or internal necessities. Historically, this necessity came from the certification that certain patients admitted in hospital emergency services presented some level of disturbance of conscience, what motivated the emergence of several proposals for monitoring the evolution of coma conditions. Thus, the need to employ clinical, laboratory and electrophysiological criteria, among them, for example, the classic Glasgow scale [11], traditionally used in evaluation severity of brain damage, post-traumatic or not, that serves as indicator in evolution of coma conditions.

Several exams of extreme importance for the diagnosis of encephalic death evaluate brain electrical activity, metabolic activity, and brain blood perfusion, such as computerized tomography, intracranial pressure monitoring, chemical markers of the cephaloraquidian liquid, the electroencephalogram, brain angiography, transcranial doppler, radionuclide imaging, and evoked brainstem auditory potential [12].

Physicians should observe strictly the criteria stipulated in CFM resolution in order to arise no doubts regarding certification of encephalic death occurrence, as well as to safeguard them from possible administrative processes or legal suits aiming at turning them responsible for death occurrence, based in both Penal and Civil Codes.

These professionals have special attention in ellaboration and setting encephalic death criteria, because they are the only ones with competence to make its diagnosis and, therefore, they need to be sure in relation to them. Additionally, ethical and moral dilemmas that they experience are huge, since their relationship with patients, both in the private-individual scope and in the public-collective dimension, may be characterized not only just as eventually conflictive, but rather essentially conflictive [13].

In addition to physicians difficulties in the diagnosis of encephalic death, there are specific situations in which there is need to communicate or to discuss the situation with the family, not speaking of the characteristics of each patient and of each case, which should be analyzed carefully by the team [14]. In view of this picture of uncertainties and conflict, it is impossible not evoke bioethical referential to deal with present topic, because there is a very close relation between history of organs transplants and bioethics genesis itself (*una muy estrecha relación entre la historia de los transplantes de órganos y la gênesis misma de la bioética)* [15].

Objectives

The present work has as overall objective to study encephalic death situation, the capture of organs for transplant in the HBDF, and the following up of criteria foreseen in CFM Resolution no. 1,480/97 [5]. Specific objective were: a) to evaluate the declaration term of encephalic death (TDME), and the potential donor notification (NPD), routine documents issued in

cases of capture of organs for transplant undertaken in this hospital, during the period of January 2000 and September 2004; b) to analyze the level of knowledge of neurologists and intensivist (physician working in the intensive care units – ICU) about mentioned criteria; c) to verify difficulties in following up criteria foreseen in above mentioned resolution; d) to get these physicians' opinion regarding if they understand as safe or not the declaration of encephalic death based in such criteria; e) to analyze interviewees' perception about the efficacy of encephalic death diagnosis in capturing organs; f) to verify if studied medical institution is structured suitably to enable such diagnosis; g) to question if physicians included in the sample for the study would provide a TDME based so lely in a neurologic clinical examination; h) to get a report on which complementary exams they consider as the safest for encephalic death diagnosis

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Method

The research process was divided in two instances. The first, analysis of information stated in the TDME and NPD, in cases of capture of organs in the HBDF, obtained at the Central of Capture of Organs and Tissues, during the period of January 2000 to September 2004. The second, regards submission of questionnaires to 30 neurologist and intensivist doctors in mentioned hospital, and chosen randomly with analysis of responses a posteriori. The option for neurologist and intensivist doctors is justified by the fact that they are responsible for carrying out exams for encephalic death diagnosis and, jointly they experience the dilemmas pertinent to studied topic. After signing the free and clarified consent term by participants in the research, it was clarified that their respective identities would be anonymity.

TDME, the first document analyzed, serves to attest occurrence of encephalic death. Clinical and complementary data are recorded in this document. It presents a field targeted to patient's identification and to clinical diagnosis. Next, it deals with the cause of coma, while coma due to hypothermia and for the central nervous system depressive drugs ceases. Then, it follows the field targeted for neurological exams, which will be carried out in preset periods, in accordance to patient's age. Neurological exams, are designed as *exam 1* and *exam 2* and they must be carried out and signed by two physicians, who cannot comprise organs removal and transplant teams. Still, the following items are analyzes in these exams: non-perceivable coma, fixed and non-reactive pupils, absence of corneal and pupil reflex, absence of oculocephalic reflex, absence to heat test reflex, absence of coughing reflex, and apnea. Finally, complementary exam is carried in order to unequivocally show lack o intracranial blood circulation, of electrical brain activity or metabolic brain activity, with observations about patients' age as well.

TDME, duly filled up and signed, as well as complementary exams used for encephalic death diagnosis should be filed i patient's own medical records file, as determined by Article 8 of CFM resolution. Once encephalic death is certified and documented, the clinical director of the hospital institution or someone delegated by him, should communicate the even to patient's possible legal representative and to the Central of Notification, Capture, and Distribution of Organs to which the hospital unit is linked and where the patient was intern, as prescribed by Article 9 of the resolution, while a copy of the term must be sent mandatorily to the state controlling agency (item 7 of TDME).

NPD, in its turn, has a field targeted to identification of possible donor and other to justify the causes for non-donation in those cases considered as non-suitable (lack of clinical conditions, non-confirmed encephalic death, cardio respiratory arrest, positive serology for infectious-contagious disease, family refusal, non-located family, or others).
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In the second stage of the work, the questionnaires submitted to 30 neurologist and intensivist doctors had seven multiple choices questions, with demands about: 1. Knowledge about encephalic death concept; 2. Interviewee's impression about confiability of encephalic death diagnosis in light of criteria foreseen in CFM resolution; 3. Difficulties in following up mentioned criteria; 4. HBDF efficacy in capturing organs 5. adequacy of the structure for encephalic death diagnosis in mentioned hospital; 6) eventual supply of a TDME based just in clinical examination; 7. which complementary exams would be considered by the interviewed as the safest for encephalic death diagnosis.

Results

One verified that, in first instance of the research, TDMEs and NPDs at HBDF are filled up in accordance to what is set forth in Resolution no. 1,480/97 and in pertinent legislation, while observing inherent procedures. TDME analysis evidenced that, for effect of organ donation from patients with encephalic death, different physicians who do not comprise transplant team undertake two neurological exams, and that electroencephalogram is the most used complementary exam.

Figure 1 presents the results of analyzed 676 potential donor notifications from January 2000 to September 2004. One verified that average effective donation was at the level of 15.8%, family refusal had a percentage average of 27.2%, and other causes for loss of donation, which refer to possibilities of PCR (cardio respiratory arrest), serology, non-confirmed encephalic death diagnosis, non-donor while alive or without clinical conditions presented a rate of 57%.

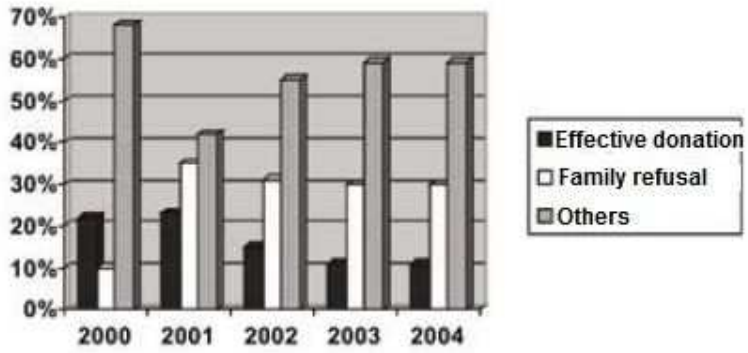

Figure 1. Data from analysis of 676 NPDs at HBDF, January/2000-September/2004
Source: authors' research.

One verified that, regarding the evaluation of questionnaires, interviewed neurologist and intensivist doctors were in age group of 26 to 53 years old. Among these, 93.3% had knowledge of CFM Resolution no. 1.480/97 to certify, unarguably, occurrence of encephalic death. Concerning the reason for difficulty in following the criteria from mentioned resolution, some of the interviewees check more than one item, with the following outcome: 57% stated lack of technological resources, 53% understand that difficulty lies in shortage of human resources, and just 17% point to lack of financing resources. The majority (86,6%), believe that certification is safe, as long as resolution criteria are followed. Still, it was found that 80% would not provide a TDME exclusively based in neurologic clinical exam, without complementary exam, and 63,4% consider that HBDF is not structured in a way to enable such diagnosis safely.

Concerning questioning related to safer complementary exams, respondent chose more than one item. One noticed that 73.3% of interviewed indicated brain angiography, 63.3% chose transcranial doppler, 56.6% indicated the electroencephalogram, 19.9% preferred radionuclide imaging, and 6.7% chose the electric potential, as shown in Figure 2.

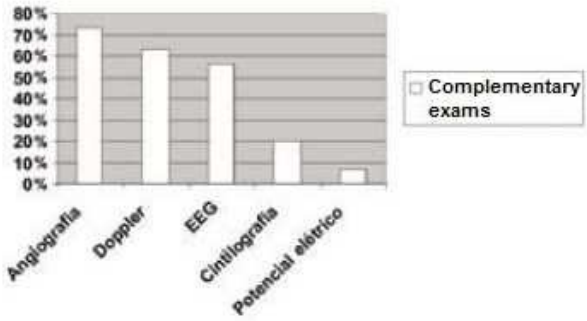

Figure 2. Safer complementary exams for encephalic death diagnosis, according to interviewed intensivist doctors at the HBDF
Source: authors' research.

Discussion

From the necessity and obligation for physician to follow criteria foreseen in CFM Resolution no. 1,480/97 to diagnosis encephalic death, one creates a bridge to analyze the issue in light of bioethics. The present work aims at, among other aspects, analyzing the necessity of encephalic death diagnosis to be absolute safe and unarguable for the security of potential donor and his family (in cases of donor-corpse), in addition to rescue needed protection to medical class, in the hypothesis of administrative process or legal suit aiming at accountability.

From TDME and NPD analysis one found that HBDF follows, in filling up these documents, what is foreseen in laws no. 9,434/97 [2] and 10,211/01 [3] and in already mentioned CFM resolution. That is, the institution and its physicians have a conduct based in national standards that govern the issue.

However, Figure 1, produced after analyses of NPDs, evidences that organ capture is not been effective, in as much as the decrease in effective organs donation during the almost five years surveyed. In this period, effective donation, this was about 20% in the period of 2000-2001, lowered to just 10% in the period of 2003-2004. In parallel, family refusal, preponderant factor in organs capture that was significantly below 10% in 2000, increased to about 30% in the following years, probably due to inopportune and unskilled way that Executive Power and National Congress dealt and enacted, at the time, the so-called Law of Presumed Donation, later revoked, which generated so much distrust among population [16]. The major reason detected for loss of donations, however, is in item "other causes" that presents an average about 57.7% for the period. These, are consubstantial in: cardio respiratory arrest, positive serology (hepatitis, HIV/Aids, or other problems), non-confirmed encephalic death diagnosis, non-donator statement in life, and lack of clinical conditions.

Brazil made significant progress in the past years regarding legislative feature in health sector. Its Constitution is considered as one of the most advance in the world regarding health [13]. Laws 9,434/97 and 10,211/2001, as well as CFM Resolution no. 1.480/97, were issued following this constitutional advance. However, despite all this legislative progress in the health sector, particularly in human organ and tissues transplant realm, the survey showed that there inefficacy in organs capture at HBDF, which implies in long permanence of people in queue, waiting for an organ. The fact that benefits for society are far below what should be expected, despite the country counting on suitable legislation, indicates that *the collective practice is far from following progress provided by law* [13].

Additionally, as families' refusal in the donation field gradually increased tp a high level, one understands that

families do not feel safe regarding the process that involves organs donation and transplant. This mistrust may be related both in the regular compliance of transplant complex process and, specially, to criteria used for encephalic death certification at HBDF, what one may infer from responses given by interviewed experts. In this context, people are in vulnerability position probably for not knowing procedures involving organs donation, or because they are not duly clarified regarding encephalic death concept. The State, because what is set forth in Article 10, single paragraph of Law no. 9,434/97 [2], temhas the duty and responsibility to undertake public campaigns to clarify the public and to stimulate organ donations, which would allow people to understand the meaning of encephalic death concept and the whole ethical dimension that involves the issue.

Regarding to what refers the second instance of the research, related to analysis of questionnaires, one noticed that majority of interviewees informed to know CFM resolution criteria related to certification of encephalic death occurrence. Those few respondents, who stated not knowing of it, possibly do not work routinely and directly with organs transplant procedures. Nevertheless, the majority of physicians heard was duly aware of all procedures that must be followed in the diagnosis of encephalic death, what is fundamental so they can act with commitment and responsibility, providing benefits expected by patients in the waiting line for organs.

According to responses gotten in the survey, major difficulty in following criteria of mentioned resolution, actually of the HBDF, relied in lack of human and technological resources sufficient for good institutional work.

Physician has his conduct guided in the way to minimize risks and damages, and to avoid any loss to patients, seeking to contribute always to his well-being [17]. This is what one extracts from beneficence and non-maleficence, respectively, both historical references in Hippocratic tradition of, above all, to do the good and to avoid evil. At this point, a major conflict is set out that is experienced by the medical class. In the yearning that is peculiar to it of providing continuation of life to a human being who waits in line for an organ, it is prevented from contributing to this higher good because the institution where physicians work is not structured suitably to enable safely encephalic death diagnosis.

Thus, it becomes a flagrant case of maleficence due to omission. One inflicts an evil to people in queue waiting for an organ, in order to continue living, because the hospital does not have human and technological resources to make operational organs transplantation. The non-maleficence principle presents the obligation of not inflicting any damage to patient, and it derives from the maxim *primum non nocere,* assuring that physical harm is avoided, or al least minimized, to patients.

It becomes necessary, then, an interventional behavior by the responsible public powers (Ministry of Health and Public Attorney's Office), seeking to solve such deficiencies in order to organs transplants become effective.

One must stresses, still, the vulnerability to which physician undergoes, due to lack of conditions in consequence of non compliance of legislation by the institution in which he works, been liable, by omission, to professional and legal processes. Encephalic death certification is safe, for large majority of interviewed, as long as CFM resolution criteria are followed. The majority stated that they would not provide a TDME only based in neurologic clinical examination, without complementary exam.

Those Interviewed consider brain angiography as the safest complementary exam for ME diagnosis (73.3% of responses), followed by transcranial doppler (63.3% of responses), and the electroencephalogram (56.6% of responses). However, our survey found that this third option – the electroencephalogram – was the most used means in the institution as complementary exam for ME certification, according to TDMEs analysis. Additionally, 63% understood that the HBDF is not structured to safely enable such diagnosis.

The current discussion can be enriched with references proposed in the context of the four "Ps" needed for the exercise of a responsible bioethics in the 21st Century[18]: precaution, prevention, prudence, and protection.

It was formally proposed at RIO 92 Conference the precaution principle, understood as (...) *the guarantee against potential risks that, in accordance to current status of knowledge, cannot be identified. This principle states that lack of formal scientific certainty, the existence of severe or irreversible damage risk requires implementation of measures that may foresee this* [19]. This principle, by nature, seeks to set away the danger of damage in situations of uncertainties. It implies a cautious action in face of risk, characterizing the conduct of majority of interviewed physicians who stated that they would not provide a TDME just based in a neurologic clinical exam, without complementary exam.

The idea of *prevention*, in its turn, focus on the management and control need at instance previous to undesired event. However, in the case under study, its applicability collides with HBDF structural problems informed by the interviewees. Physicians, in their replies, showed prudence in their acts, that is, careful, cautious. Data analysis reveals that they guide their activity in not acting hastily for their patients' protection, and it shows that they intend to act with legal support in transplant area, aiming at greater safety for all involved.

The virtue of *prudence* is essential in medical activity related to organs

transplants, since it accredits the professional to habitually execute what is correct, what is convenient, and what is truly good for patient. This posture shows coherence with the activity developed by physicians in studied sample, since the majority would not provide a TDME just based in neurologic clinical exam, without complementary exam. Similarly, this posture is in agreement with the fact of not been satisfied with the choice of one single complementary exam, which is in accordance to the fact that one of major problems with encephalic death diagnosis relies in the fact that any single isolated technological process has shown to be integrally satisfying [8].

The protection issue, in its turn, is understood by Schramm as (...) *the measure that must, necessarily, be taken to protect individuals and populations that do not have other measures to assure their indispensable conditions to lead a dignified life* [20]. That is, protecting discussion herein gets two ways, according to interviewees' perspective: that of the donator-corpse situation, which requires safety in encephalic death diagnosis in order to remove organs; and that of patient who is in the waiting list, waiting for a savior organ. Therefore, both must be protected.

Thus, it is unarguable that, for interviewed physicians, following criteria set forth by CFM is indispensable to the end proposed by legislation related with organ donation in the country, which gives them need security to exert activities related to transplants. However, efficacy of transplants is hindered by the fact that professional feel difficulty in following referred criteria due to issues concerning insufficiency or shortage of human and technological resources. It is necessary, in the realm of organs capture, that *an ethically free science advances to other ethically responsible, of a technocracy that dominates Man toward a technology that is at service of Man's own humanity* (...) *of a legal-formal democracy to a real democracy that conciliates freedom and justice* [21].

Final considerations

The topic of organs transplant, in the 1990s, won notoriety. After promulgation of the 1988 Federal Constitution, laws no. 9,434/97 and 10,211/01 related to health sector were issued, as well as CFM Resolution no 1,480/97, aiming at making operational the whole organs capture procedure in the country.

The present research, undertaken at HBDF, showed that there is difficulty in practical implementation of the legal conquests, particularly about safety in encephalic death diagnosis. In that institution, efficacy in this diagnosis is hindered by structural problems related to shortage of human and technological resources. Catalyst element of the whole process of organ capture is the precocious encephalic death diagnosis. Delay in its establishment turns organs for donation unfeasible.

Still, in accordance to collected data, one cannot forget the high rate of family refusal in the past four years, which also turns transplants unfeasible. One may infer that families do not feel safe regarding organs transplant process, possibly because they do not know organ donation procedure, because they do not trust public health system to define encephalic death, or because they are not duly clarified to this regard, particularly related to encephalic death concept itself.

Research points to the need of going from the suitable Brazilian constitutional dispositions to the practice of doing and changing, in order to have the consecrated hope of epidemiological pictures more dignified regarding health of Brazilians [13].

Research work developed at Bioethics' Unesco Chair for the graduate program in Bioethics at the University of Brasilia (UnB)

Resumen

Análisis bioética del diagnostico de muerte encefálica y de la donación de órganos en el hospital público de referencia del Distrito Federal, Brasil

El estudio hace un análisis bioética del diagnostico de muerte encefálica (ME) en el contexto de la captación de órganos para trasplante en el Hospital de Base del Distrito Federal (HBDF), institución de referencia regional, con base en la Resolución 1.480/97 del Consejo Federal de Medicina (CFM) en lo referente a: i) grado de conocimiento médico; ii) confiabilidad; iii) dificultades para su seguimiento; iv) eficacia y seguridad; v) adecuación de la estructura y de los recursos del hospital para adopción de estos criterios. La investigación mostró bajo índice de donación efectiva (15,8%); significativo índice de recusa familiar (27,2%); otras causas de pérdida de la donación sumaron 57% (parada cardiorrespiratoria, serologia positiva etc.). La aplicación e interpretación de cuestionarios contestados por 30 médicos neurólogos e intensivistas del HBDF, que mostraron los siguientes resultados: los criterios preconizados por el CFM son conocidos por más del 93% de los entrevistados y considerados confiables por 86,6% de ellos; por falta de recursos tecnológicos y humanos, 63,4% piensan que el hospital no está estructurado para proveer un diagnóstico de ME seguro; 80% de los entrevistados no firmarían un TDME basado exclusivamente en el examen clínico; 73.3% indicaron la angiografía cerebral como el examen complementario más seguro para diagnosticar ME, aunque el electroencefalograma fuese el

medio más utilizado en la Institución.

Palabras-clave: Bioética. Muerte encefálica. Diagnóstico. Trasplante de órganos.

Resumo O estudo faz uma análise bioética do diagnóstico de morte encefálica (ME) no contexto da captação de órgãos para transplantes na instituição de referência regional, o Hospital de Base do Distrito Federal (HBDF), tendo por base a Resolução 1.480/97 do Conselho Federal de Medicina (CFM), quanto a: i) grau de conhecimento médico; ii) confiabilidade; iii) dificuldades para seguimento; iv) eficácia e segurança; v) adequação da estrutura e dos recursos do hospital para a adoção desses critérios. A pesquisa mostrou baixo índice de doação efetiva (15,8%); significativo índice de recusa familiar (27,2%); outras causas de perda (parada cardiorrespiratória, sorologia positiva etc.), 57%. A aplicação e interpretação de questionários respondidos por 30 médicos neurologistas e intensivistas do HBDF, indicaram os seguintes resultados: os critérios preconizados pelo CFM são conhecidos por mais de 93% dos entrevistados e considerados confiáveis por 86,6% deles; por falta de recursos tecnológicos e humanos, 63,4% acham que o hospital não está estruturado para prover um diagnóstico de ME seguro; 80% dos entrevistados não assinariam um TDME baseado exclusivamente no exame clínico; 73,3% indicaram a angiografia cerebral como o exame complementar mais seguro para diagnosticar ME, embora o eletroencefalograma fosse o meio mais utilizado na instituição**.**

Palavras-chave: Bioética. Morte encefálica. Diagnóstico. Transplante de órgãos

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Received: 2.17.2010 Approved: 6.16.2010 Final approval: 6.25.2010

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