Islam and end-of-life organ donation

To the Editor

I read with great interest the argument made by Rady and Verheijde,[1] identifying problems with current definitions of death in relation to organ donation, and would like to add some further points in support.

Before the era of modern medicine in Europe, a common concept of death was the departure of the soul from the body. Perhaps because "the blood is in the life" (Deuteronomy 12:23), the nearest physical criteria to which this concept of death corresponds, is cardiovascular, the irreversible stopping of the heart. Alternatively, if the soul is associated with personhood, the concept of loss of the soul would correspond to the physical criteria of irreversible loss of consciousness. However, the concept of death as the irreversible loss of integrative function is neither ancient nor intuitive, and was not articulated until the development of brainstem death criteria. Rather than starting with a concept of death, and then identifying what physical criteria this concept corresponded to, it appears that brainstem death criteria preceded the concept of death that was later used to justify those criteria.

At first glance, it can appear that the withdrawal of mechanical ventilation in the intensive care unit (ICU) might have been the motive for the change. In the United Kingdom, the 1976 conference looking at brain death concluded that "permanent functional death of the brain stem constitutes brain death, and that once this has occurred, further artificial support is fruitless and should be withdrawn."[2] But this conference explicitly did not equate "brain death" with "death."[3] The position in 1976 was that brain death indicated the futility of further ICU treatment. It did not indicate that death had occurred. Only in the 1979 report was brain death equated with death itself, therefore allowing the harvesting of organs for donation. What was originally presented merely as a prognostic sign of futility was subtly shifted to become a diagnostic sign of death itself. It is noteworthy that the criteria were written with the advice of the subcommittee of the Transplant Advisory Panel.

A similar lack of transparency in the early stages was also evident in the United States. Beecher, chair of the committee responsible for exploring the definition of brain death, is quoted as saying: "At whatever level we choose to call death, it is an arbitrary decision… It is best to choose a level where, although the brain is dead, usefulness of other organs is still present." Singer also quotes the Dean who appointed the committee, who was unhappy on the wording in the first draft of the report: "the connotation of the statement is unfortunate, for it suggests that you wish to redefine death in order to make viable organs more readily available…"[4]

The fallacy of using the need to withdraw ICU treatment to justify the definition of death using brain death criteria, is simply that there is no need to declare a patient dead before withdrawing treatment. It was and is prognostic futility that justifies withdrawal, not death itself. Brain death certainly indicates extreme futility. Whether it indicates death itself is a question that relies on a new concept of death, which is why one was created: the irreversible loss of integrative function, or in the United Kingdom, the irreversible loss of the capacity for consciousness. It would appear that brain criteria for death were developed primarily for organ transplantation, but gained initial acceptance by appearing to function less controversially as a definition of futility in the ICU.

We are left with a situation in which death itself has been redefined in order to increase organ donations. Yet this begs a much a bigger question, which Rady and Verheijde[1] do not address: why must a patient be dead before donating organs? The reason why death was redefined was because it was considered unacceptable to take organs from someone who is still alive. But if death is a process and not a single event, could organs not be taken from those who have irreversibly entered this process, as demonstrated by meeting brainstem death criteria. They might not be "completely dead", but nor are they "alive." Rady and Verheijde[1] quote an Islamic rule that one is forbidden from harming oneself; but it could be argued that it is impossible to cause further harm (or benefit) to someone who has irreversibly entered this process of dying; that expediting the completion of death for such a person is not actually a "harm." One could also quote Jesus' words: "greater love has no one than this, that he lay down his life for his friends" (John 15:13). Perhaps if organ donation had been presented as a noble act of self-sacrifice for others, admittedly only when one had no further use of those organs, then there would have been no need to pretend that people are dead, when they are not. The appearance of deception may yet cause much damage to the organ transplant program.

Giles N. Cattermole
Accident and Emergency Medicine Academic Unit
Chinese University of Hong Kong
Shatin, Hong Kong

Reply from the Author

We thank Dr. Cattermole for highlighting supportive evidence identifying serious flaws with the current definitions of death in relationship to organ procurement. We agree with Dr. Cattermole that to pretend that people are dead when they are not creates the appearance of deception, which is damaging to the practice of organ transplantation. For the past 4 decades, organs have been procured from people who have not fulfilled the legal standard and definition of death established in the 1981 Uniform Determination of Death Act (UDDA).[5] We also agree that the 1969 Harvard Report on brain death marked the beginning of a practice of what should be considered "utilitarian homicide" under the public illusion of strict adherence to the dead-donor rule, namely, the procurement of organs from a dead body.

Dr. Cattermole asks "Why must a patient be dead before donating organs?" stating that "(donors) might not be 'completely dead,' but nor are they 'alive," and it could be argued that it is impossible to cause further harm (or benefit) to someone who has irreversibly entered this process of dying, that expediting the completion of death for such a person is not actually a "harm." In fact, the same argument has been made by a leading United States transplant bioethicists such as Bernat[6] and Miller.[7] They have also posited that organ donors are at the end of their lives, and should be considered "as good as dead," which should then constitute an acceptable justification for proceeding with the procurement of organs before true death. This line of reasoning is the foundation for utilitarian homicide for the purpose of procuring transplantable organs to save the lives of others. At a minimum, this position violates the dead-donor rule. There is also clinical, psychosocial, and religious evidence that considering persons at the end of their lives to be "as good as dead," and thus allowing the donation of their organs, inflicts harm on donors, and their families.

From a clinical perspective, a person, who is not completely dead, can retain a certain level of consciousness (awareness, arousal, or both) that may be difficult to detect by traditional clinical assessment. Surgery and the procurement of organs without the administration of general anesthesia or opioidergic agents for pain control in persons declared "brain dead" result in nociceptive hemodynamic responses and limb-withdrawal movements that often require suppression by administration of neuromuscular-blocking agents. Extreme sensation of pain during surgery for organ procurement cannot be totally excluded.[8] These donors can never recover to describe their experiences. Recent scientific advances have proven the difficulty of measuring, or assessing the content of consciousness in unresponsive persons.[9] Furthermore, metrics have been established for measuring and ensuring the delivery of good-quality end-of-life care to patients and their families. The processes involved in end-of-life organ donation violate 60% of the recommended quality indicators of end-of-life care.[10] As a result, families of deceased organ donors may suffer profound negative psychological effects, exacerbating the intensity of depression, post-traumatic stress, and bereavement after the loss of their loved ones. Kesselring et al[11] have reported a high prevalence of symptoms related to depression, anxiety, and recurring traumatic memories in relatives who are confronted with the brain death of a loved one, and the request for organ donation.

With regard to the quote of Jesus' words, "Greater love has no one than this, that he lay down his life for his friends" (John 15:13), cannot be interpreted as a moral imperative condoning the killing of people for organs. The relevant fact in this discussion is that the 3 Abrahamic religions (Judaism, Christianity, and Islam) issued their previous rulings in support of organ donation based on claims by the medical community of scientific certainty that donors were completely dead, and that the act of removing organs was not the proximate cause of death in a donor. The Abrahamic religions forbid intentional killing, by either suicide or homicide, for organs. This position was reaffirmed by Pope Benedict XVI in his 2008 address on organ donation. He stated that vital organs can be extracted *ex-cadavere* (from a dead body) if, and only if, the donor's true death can be certified beyond doubt.[12] The prognosis of death (even rendered under the presumption of moral certainty) cannot substitute for the diagnosis of death even if that would serve the purpose of avoiding the appearance of public deception. Only limited options are available for resolution, and maintaining public trust in the integrity of medicine. Either we establish public support for changing the law and moral paradigm (which is likely to be opposed by all Abrahamic religious traditions), or we limit the procurement of organs, namely, from truly dead bodies.

Mohamed Y. Rady
Department of Critical Care Medicine
Joseph L. Verheijde
Departments of Biomedical Ethics and Physical Medicine and Rehabilitation
Mayo Clinic Hospital
Mayo Clinic Arizona, Phoenix, Arizona
United States of America

References

1. Rady MY, Verheijde JL. Islam and end-of-life organ donation. Asking the right questions. ***Saudi Med J*** 2009; 30: 882-886.
2. Diagnosis of brain death. Statement issued by the honorary secretary of the Conference of Medical Royal Colleges and their Faculties in the United Kingdom on 11 October 1976. ***Br Med J*** 1976; 2: 1187-1188.
3. Diagnosis of death. Memorandum issued by the honorary secretary of the Conference of Medical Royal Colleges and their Faculties in the United Kingdom on 15 January 1979. ***Br Med J*** 1979; 1: 332.
4. Singer P. Rethinking Life and Death: The collapse of our traditional ethics. Oxford (UK): Oxford University Press; 1994. p. 26.
5. Delimiting death. ***Nature*** 2009; 461: 570.
6. Bernat JL. Dead, or as good as dead? ***Lahey Clinic Medical Ethics Journal*** 2009; 16: 3.
7. Miller FG. Death and organ donation: back to the future. ***J Med Ethics*** 2009; 35: 616-20.
8. Fitzgerald RD, Hieber C, Schweitzer E, Luo A, Oczenski W, Lackner FX. Intraoperative catecholamine release in brain-dead organ donors is not suppressed by administration of fentanyl. ***Eur J Anaesthesiol*** 2003; 20: 952-956.
9. Chawla LS, Akst S, Junker C, Jacobs B, Seneff MG. Surges of Electroencephalogram Activity at the Time of Death: A Case Series. ***J Palliat Med*** 2009 October 5; DOI: 10.1089=jpm.2009.0159.
10. Rady MY, Verheijde JL, McGregor J. Organ donation after circulatory death: the forgotten donor? ***Crit Care*** 2006; 10: 166.
11. Kesselring A, Kainz M, Kiss A. Traumatic memories of relatives regarding brain death, request for organ donation and interactions with professionals in the ICU. ***Am J Transplant*** 2007; 7: 211-217.
12. Pope Benedict XVI. Benedict XVI on Organ Donation. "A Unique Testimony of Charity." Vatican City. [updated 2008 November 7] [cited 2009 August 1] Available fromURL: http://www.zenit.org/article-24191?l=english.

Related topics

Al-Ghanim SA. The willingness toward deceased organ donation among university students. Implications for health education in Saudi Arabia. ***Saudi Med J*** 2009; 30: 1340-1345.

Khalaf H, El-Meteini M, El-Sefi T, Hamza AF, El-Gazaz G, Saleh SM, Moustafa I, Gad H, Yosry A, El-Hussainy E, Khafaga M, Helmy A. Evolution of living donor liver transplantation in Egypt. ***Saudi Med J*** 2005; 26: 1394-1397.

Hasan WA, Al-Akraa MM. Laparoscopic live donor nephrectomy. ***Saudi Med J*** 2005; 26: 1051-1054.

Al-Sebayel MI, Al-Enazi AM, Al-Sofayan MS, Al-Saghier MI, Khalaf HA, Kabbani MA, Nafae OM, Khuroo SS. Improving organ donation in Central Saudi Arabia. ***Saudi Med J*** 2004; 25: 1366-1368.