

Understanding the Concept of Brain Death in the Middle East

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The concept of brain death is still foreign in the Omani community. The notion that an individual is dead, according to medical definition, while the heart is still beating causes a lot of turbulence between the patient's family and the caring physician.

This lack of understanding of the concept of brain death prevents the utilization of these individuals as potential organ donors, which is a problem in an era where the requirement for organs exceeds their availability. Additionally, occupancy of the limited number of intensive care unit beds by brain dead patients limits the use of these resources by those needing critical care.

Brain death is defined as the irreversible cessation of all functions of the brain. To diagnose brain death, a set of well-established criteria needs to be followed, which are applied by a trained physician in critical care medicine. This requires two examinations, which are performed six hours apart, and ancillary tests are also needed on occasion to supplement the examination findings.

In the Middle East, the major experience in the field of brain death and organ donation comes from Saudi Arabia. Here, the diagnosis of brain death is more commonly given and families are usually approached for organ donation. In one study, 162 patients were diagnosed in one center from 2001–2005¹ and consent for organ donation was obtained in only 17% of patients with the majority being non-Saudis. In another study, conducted in 2010, there were total of 396 cases of documented brain death according to the national protocol.² Families were approached in 80% of these cases and consent was taken for organ donation in 39% of these cases. However, the actual organ retrieval occurred in only 85% of the consented patients.

In spite of such experience, the Saudi public is still unaware that brain death is a death approved by Islamic scholars, which has led to a low rate of acceptance of the diagnosis as well as approval for organ donation.

In Egypt, brain death and organ donation is also not a well-established phenomenon in the medical field or the general population. The major reason for this is the conflicted opinions of Islamic scholars. Therefore, making the diagnosis is not commonly entertained as it has no end of life implications, such as withdrawal of life support or organ donation.³

Iran was the first country in the Middle East to perform kidney transplantation in 1967 in Shiraz. Religious scholars issued the first *fatwa* (a ruling on a point of Islamic law) that permitted the diagnosis of brain death and organ transplantation in the same year. However, the official legislation of brain death was not approved by parliament until the year 2000. From 1967–2003, 166 cadaveric renal transplants were performed and 50% of these were after the year 2000. Now, around 24 kidney transplantation per million population per year are performed in Iran.⁴

In Oman, we have specific criteria and protocols to diagnosed brain death. However, there are no guidelines or regulations across all hospitals in the country about what practice should follow the diagnosis of brain death, such as withdrawal of life support and organ donation.

Unfortunately, we as health care professionals and physicians have failed to bridge the gap that exists between medical knowledge, legality of brain death, religious views, and the education of our community in this regard.

In order to resolve this, different institutions across the country need to come together to form a committee in order to deal with this important and critical subject.

Firstly, we need to form clear guidelines related to the diagnosis of brain death and subsequently guidelines related to the withdrawal of life support in these patients. Secondly, we need to arrange and conduct a forum, including religious and legal authorities, to discuss organ donation and come to a consensus on policies and guidelines relating to the process of organ donation. Finally, we also need to educate the public on sensitive issues such as this and increase their overall awareness of brain death as a medical condition.

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