

The Death of Brain Death : An Islamic and Bioethical Analysis in the Era of Laboratory-Grown Organs

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Keywords: *Brain death, Organ donation, Islamic bioethics, Legal fiction in medicine*

Abstract

This paper critically re-evaluates the modern construct of “brain death” and argues that its rationale would become obsolete in a future where human organs can be laboratory-grown with complete genetic compatibility and zero graft rejection or advancements in xenotransplantation. In such a context, brainstem testing would revert to its original medical role, a prognostic indicator guiding the withdrawal of life support, while the declaration of death would return to the traditional cardio-respiratory standard. The concept of “brain death,” introduced as a legal fiction to facilitate organ procurement, would thus lose its ethical justification. From an Islamic bioethical perspective, this development resolves longstanding debates amongst Muslim jurists about whether “brain death” constitutes *mawthaqīqī* (real death) or *mawthukmī* (legal death) or neither. The paper argues that brain death is a time-bound construct born out of necessity, not theology, and that the era of biotechnological organ synthesis would reaffirm death as an event decreed solely by Allah and not by man.

Introduction

The question “When does a human being truly die?” has challenged medicine, philosophy, and theology for centuries. Before the late twentieth century, death was universally defined by the irreversible cessation of heartbeat and breathing, the *cardio-respiratory definition*. However, with the advent of mechanical ventilation and the first successful human heart transplant in 1967ⁱ, a crisis emerged: organs suitable for transplantation could only be harvested from bodies that were biologically alive.

In 1968, the Harvard Ad Hoc Committeeⁱⁱ proposed a new criterion for the definition of death based on irreversible cessation of all brain function. This innovation allowed organ retrieval from ventilated patients without violating homicide laws, providing an ethical and legal foundation for modern transplantation

medicine. However, as Hussain (2022)ⁱⁱⁱ argues, this “solution” introduced a moral paradox: “The main reason for introducing the concept of brain death was to increase the number of organs available for transplantation.”

Historical and medical background

Irreversible cessation of all brain functions. In fact, no organ in a patient declared brain dead is actually dead; the term “brain death” is itself a misnomer, a legal fiction^{iv}. Patients declared brain dead still maintain circulation, endocrine function, the ability to absorb food, the ability to grow, fight infection, and even gestational capacity. The persistence of integrated bodily functions contradicts the idea that the organism as a whole has ceased to exist^v.

Subsequent revisions from “whole brain death” to “brainstem death” further weakened the coherence of the definition. The UK Conference of Medical Royal

Colleges (1979)^{vi} reinterpreted brainstem testing from a prognostic guideline to a declaration of death itself. The modification was later criticised as “conceptually suspect and clinically dangerous” by the U.S. President’s Council on Bioethics (2008)^{vii}.

Thus, “brain death” is not a natural nor a scientific truth but a time-bound societal construct, developed to meet transplantation demands and legislatively enforced to harmonise medical practice.

Brain Death as a Social and Legal Construct

Hussain (2023)^{viii} parallels brain death with gender identity theory, both being postmodern redefinitions detached from biological reality. In his words: “The brain death criterion for death is nothing other than a convenient fiction.”

Like gender identity, brain death depends on legal and cultural consensus rather than objective physiology. One may be “dead” in one jurisdiction but “alive” in another, illustrating its artificiality.

The ethical justification for brain death rests on *utilitarian reasoning*, that organ transplantation saves lives and thus society redefines death to serve that good. However, this pragmatic utilitarianism cannot override metaphysical truths, particularly in religions where death signifies the divine separation of soul and body (*khurūj al-rūh*).

Defining Death in the Era of Laboratory-Grown Organs and Xenotransplantation

The rapid development of tissue engineering, xenotransplantation^{ix}, and lab-grown organs introduces a transformative ethical paradigm. If organs can be synthesised in laboratories from a patient’s own stem cells, achieving 100% immunological compatibility, or by advancements in xenotransplantation, then:

1. The need for brain-dead organ donors disappears.
2. Brain death loses its functional necessity.
3. Brainstem testing reverts to a prognostic tool, used only to predict recovery potential.

In this framework, death will once again be determined by the traditional cardio-respiratory standard, the

irreversible cessation of heart and breathing, the very signs recognised by Islamic and classical medical traditions for over a millennium.

Patients who fail brainstem reflexes but maintain circulation would be reclassified as having “brainstem failure”, analogous to end-stage organ failure. Decisions about ventilator withdrawal would be medical, not ontological, guided by prognosis, not by an artificial declaration of death.

Islamic Jurisprudential Analysis

Islamic scholars have long debated whether brain death constitutes *mawthaqīqī* (actual death) or *mawthukmī* (legal death) or neither. The OIC International Fiqh Academy (1986)^x allowed brain death-based declarations under strict conditions, which are not fulfilled in current clinical practice in the U.K., while other authorities, such as the Fiqh Council of North America^{xi}, the European Council on Fatwa and Research^{xii}, and the Indian Fiqh Academy^{xiii} rejected brain death as Islamic death.

Mufti Muhammad Zubair Butt’s NHS-supported fatwa^{xiv} (2019) concluded that: “From an Islamic perspective, neither donation after brain death nor donation after controlled circulatory death fulfils the criteria of death.”

If organs can be obtained without reliance on “brain dead” donors, this entire theological controversy becomes redundant. Muslim scholars would no longer need to interpret metaphysical death through neurological proxies. Death would again be determined by visible, irreversible cardio-respiratory cessation, aligning medical practice with the traditional concept of Islamic death.

Ethical and Theological Implications

Reverting to the cardio-respiratory criterion preserves key Islamic ethical principles:

1. Sanctity of life (*ḥurmat al-ḥayāh*), no organs are removed from individuals who are not actually dead.
2. Truthfulness (*ṣidq*), Muslim doctors no longer need to obscure the reality of biological life behind legal fictions when trying to recruit organ donors.
3. Non-maleficence (*lāḍararwa-lāḍirār*), prevents harm through premature dissection of patients to remove their organs for transplantation.

4. Future transplantation ethics must prioritise informed consent, transparent public discourse, and adherence to religious and moral values.
5. Divine Sovereignty, death returns to being the moment ordained by Allah, not redefined by human convenience.

The Qur'an states: "*And do not kill the soul which Allah has made sacred except by right.*" (6:151) and "*And it is He who gives life and causes death.*" (23:80)

Brain death, as a utilitarian invention to enable organ procurement, undermines these divine principles by redefining life for expediency.

Conclusion

The emergence of laboratory-grown organs and advancements in xenotransplantation will represent not merely a medical innovation but also perhaps a moral correction.

The necessity that once justified brain death will disappear when organ scarcity no longer exists. Brainstem testing should then be reclaimed as a clinical prognostic tool, as originally intended^{xv}, not a declaration of ontological death.

For Muslims, this technological transition resolves one of modern bioethics' most persistent theological dilemmas, affirming that death occurs only when the soul departs, signified outwardly by irreversible cessation of heart and breath.

Ultimately, the brain death construct will be remembered as a transient legal fiction^{xvi, xvii}, a product of human pragmatism during an era of medical scarcity. Its disappearance will restore coherence to medical ethics and harmony between modern medicine and the Qur'anic understanding of life and death, a reality determined solely by Allah, not by man.

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