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Case Report

Factors Affecting Acceptance of the Diagnosis of Death by Neurological Criteria

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Abstract

Death by Neurological criteria is approved in the UAE. The Legalizing infrastructure supporting regional transplantation updated the process in UAE receiving special care to confront refusal of the family affecting the donation rate. We present a case to explore aspects of refusal of diagnosis of brain death in 20-year-old male diagnosed with brain death after sudden cardiac arrest. However, the family refused the diagnosis due to traditional beliefs related to culture rather than religion. Institutions across the UAE need to deal with this subject by increasing awareness regarding guidelines to diagnose brain death, withdrawal of life support and to conduct forums, including concerned authorities to reach the public society.

Keywords: Brain death, Acceptance of death, Organ donation, Refusal of brain death, UAE donation.

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Introduction

Death by Neurological criteria is approved in UAE based on ministry of health decree number 19 issued in 2020 and organ donation supported by the presidential decree issues in 2023.[1] The Legalizing infrastructure supporting regional transplantation updated the process in UAE receiving special care from stake holders and UAE leaders to confront refusal of diagnosis and denial of the family affecting the donation rate. Reasons for denial and refusal could be attributed to traditional believes related to culture rather than religion as most religions approves the concept of brain death.[2,3] Fade understanding of brain death concept limits the use of ICU beds by those needing critical care. Brain death is the irreversible cessation of the brain functions. Brain death diagnosis is based on criteria applied by a physicians in ICU.[4] We present a case to explore aspects of refusal of diagnosis of brain death in 20-year-old male diagnosed with brain death after sudden cardiac arrest.

Case Presentation

20-year-old male previously healthy except for URTI in the last 1 to 2 weeks, no family history of sudden cardiac death or premature CAD was brought to ER after cardiac arrest. He was playing football for 45 minutes before collapse and becoming breathless and not responding, CPR was started immediately. patient was given 5 DC shocks for VT\VF and 4 adrenaline injections before arrival to ER. ROSC achieved after 3 minutes from arrival to ER and he had constricted non-reactive pupils and had myoclonic jerks. ECG revealed right axis deviation with tachycardia and poor R-wave progression. CT brain revealed brain edema with no acute insult. Echocardiography showed poor LV systolic function, EF: 30% with global hypokinesia more on the apical segments of septum, anterior and lateral walls. He was kept off sedation, with ventilatory support without triggering, in deep coma with dilated fixed pupils, no motor or pain response. EEG was flat, CT brain showed Diffuse hypoxic injury. He was weaned from ECMO and remained hemodynamic stable with improvement in Cardiac function and resolved AKI but in deep coma. After 1-month patient had cardiac arrest, high-quality CPR was done but patient died and family informed but refused diagnosis due to traditional believes.

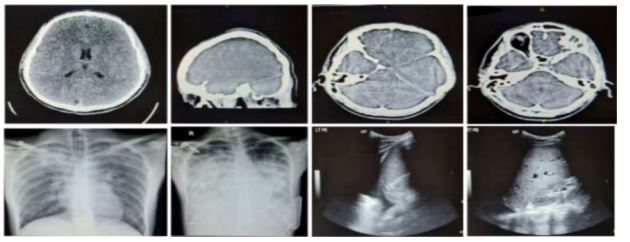

Figure 1: *Overview of Radiological Examination*

Discussion

Fade understanding of brain death concept limits the use of ICU beds by those needing critical care. Brain death is the irreversible cessation of the brain functions. Brain death diagnosis is based on criteria applied by a physician in ICU5,6. In this case, the patient's family did not accept the diagnosis of brain death due to inability to understand the criteria however after further explanation by the critical care physicians the patient's family still had religious concerns regarding the diagnosis related to the patient's soul which were answered based on published fatwas by recommended Islamic agencies[7,8]. Then after the scientific and religious factors were addressed the main factor affecting the patient's family refusal of the diagnosis was due to the belief that a miracle to restore the patient's life will happen which has happened before in a case that they know according to the patient's family although there is no clear evidence nor any details of such case.

Conclusion

UAE donation activity grew in the last few years which reflects the effectiveness of the measures implemented so far, however the experience in the field of brain death is new and the diagnosis is not common which can affect the consent rate. Physicians failed to close the gap between medical knowledge and traditional believes. Institutions across the UAE need to deal with this subject by increasing awareness regarding guidelines to diagnose brain death, withdrawal of life support and to conduct forums, including concerned authorities to reach the public society.

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Authors' Contribution

FAM: Conceptualization of the project

AA, MN: Design of the work.

NAH, IE: Data acquisition, analysis, or interpretation.

AA, NAH, IE: Draft the work.

FAM, MN: Critical review of important intellectual content.

All authors approve the version to be published.

All authors agree to be accountable for all aspects of the work.

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