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Letter to the Editor

Reply to: "Assessment and treatment of ischemia reperfusion injury: The real challenge of uncontrolled donation after circulatory death"

Sir,

We welcome the opportunity to comment on this letter on our editorial.[1] We also wish to acknowledge the efforts made by Dr Lazzeri and her colleagues in introducing successful controlled and uncontrolled donation after circulatory death (cDCD and uDCD) programs, despite the local challenges highlighted by the author. We agree that interventions to minimise the damage caused by the inevitable warm ischaemic time and subsequent reperfusion injury are essential in this form of deceased donation, and that in-situ or ex-situ perfusion techniques are showing promise in improving organ utilisation and transplant outcomes of organs retrieved from both cDCD or uDCD donors. Most countries practicing DCD would use either of these perfusion approaches, but in the context of a legal requirement of a minimum of 20 min no-touch period, it is understandable and prudent that the Italian programmes may opt to use in-situ normothermic regional perfusion (NRP) to recondition the organs and follow this by a period of ex-situ perfusion to further assess the suitability of an organ for transplantation. At present most retrieval teams use NRP for 2–4 h and monitor the lactate and transaminases, among other parameters, to assess the quality of the perfusion and the subsequent suitability of the liver for transplantation. The standard is that the transaminase levels should not exceed 4 times the upper normal limit.[2] There is no biochemical marker to specifically monitor or evaluate kidney viability during NRP. The development of new and accurate markers to assess organ viability during NRP will remain an important area of research not only to identify which organs can be safely transplanted but also to reduce unnecessary discard of organs that are suitable. Finally, international variability in the criteria used to diagnose death by circulatory criteria has been documented nearly a decade ago.[3] Perhaps one of the biggest challenges in DCD is the standardisation of our practice in this area. Attempts have been made to achieve this[4] and continue to be made to increase both public and professional confidence in the diagnosis of death. However, it is clear that variability in practice and the mandated "no-touch" time persists today, and it remains important for doctors to work within the legal and professional frameworks of the country or jurisdiction in which they practice. Yet, if all human death is considered to be based on the loss of brain functions[5] then, as long as the absence of cerebral perfusion continues, we suggest that setting an international standard "no-touch" time of five minutes for both cDCD and uDCD is appropriate, and aligns the diagnosis of death in organ donation with everyday clinical practice.

Conflict of interest

The authors have no conflicts of interest to declare.

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