Pediatric donation after controlled cardiac death (Maastricht type III donors)☆

Donación en asistolia controlada (tipo III de Maastricht) en pediatría

Dear Editor,

We were glad to read Dr. Rubio and Palaciosí paper on controlled asystole donations—Maastricht type III donors.[1] Following their paper, we would also like to make a few comments on this type of donations when they occur among the pediatric population since it is an ongoing discussion at the moment.[2–5] Infancy has a higher morbimortality in the transplant waiting lists, especially in babies under one year old; it is harder to obtain pediatric donors, and progression to brain death in this age range is rare. Even through the pediatric donation of organs is insufficient, the implementation of controlled asystole donation protocols in this age range could dramatically increase the number of donors and transplants and benefit not only the pediatric but also the adult population since there would be more organs available.[2–4] At present, when it comes to liver and kidney transplants, organs coming from controlled asystole donations do not have worse survival rates than organs coming from donations after brain death. Even though we do not have too much experience in pulmonary and cardiac transplants, results here are also promising.[2]

On the other hand, there are certain stipulations that the authors correctly include in their paper, that need to be met before the implementation of one controlled asystole donation protocol—and this may be generalized to the pediatric population. Maybe the most important stipulation of all is that donations need to be part of an end-of-life care protocol where the decisions to limit life-support (DLLS) are a well-differentiated and totally independent previous process from the potential donation of organs after death. Nevertheless, in the pediatric age and, above all, in the neonatal age, there are some peculiarities that are still unsolved and under discussion.[2,5] In the first place, the identification of patients eligible for this specific type of donation is not an easy task. On the one hand, there are cases when it is difficult to establish a diagnosis of severe irreversible brain damage and, on the other hand, we still do not have valid scales that allow us to predict the elapsed time interval to cardiac arrest once the life-support measures have been removed. Secondly, the definition of death is still ambiguous and it is not clear how many minutes need to have elapsed before declaring the death of a child or an infant. Also, there is no clarification on whether the 60–120 min. maximum waiting time until the cardiac arrest qualifies to become a donor. Finally, most parents wish to accompany their children's DLLS in several ways, among them, holding them in their arms. This requires the adaptation of the measures aimed at limiting the warm ischemia time to guarantee a process of feasible donation by preserving optimal end-of-life care with guarantees of success.

References

1. Rubio JJ, Palacios D. Reflections upon donation after controlled cardiac death (Maastricht type III donors). Med Intensiva. 2016;40:431–3 [Article in English, Spanish].
2. Weiss MJ, Hornby L, Witteman W, Shemie SD. Pediatric donation after circulatory determination of death: a scoping review. Pediatr Crit Care Med. 2016;17:87–108.
3. Stiers J, Aguayo C, Siatta A, Presson AP, Perez R, DiGeronimo R. Potential and actual neonatal organ and tissue donation after circulatory determination of death. JAMA Pediatr. 2015;169:639–45.
4. Workman JK, Myrick CW, Meyers RL, Bratton SL, Nakagawa TA. Pediatric organ donation and transplantation. Pediatrics. 2013;131:1723–30.
5. Harrison CH, Laussen PC. Controversy and consensus on pediatric donation after cardiac death: ethical issues and institutional process. Transpl Proc. 2008;40:1044–7.

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