

Organ donation in fetal medicine: from tragedy to hope

Rodríguez Suárez MJ, Díaz de la Noval B, García-González J, Porcel Llaneza I, Torrejón Becerra JC, Fernández Colomer B, Escudero Gomis A
Hospital Universitario Central de Asturias, Oviedo, Spain

Objective

The main objective was to emphasize the role of fetal medicine in identifying candidates for neonatal organ donation. Secondary objective was the analysis of problems and strategies for increasing organ availability.

Methods

Retrospective study of The Spanish National Organization of Transplants (ONT) data from January 2017 until December 2017 (allowed access to extend the study period). Inclusion criteria: organ donation in children up to one month of age. We also present our data regarding pathology, gestational age at diagnosis and delivery, follow-up carried out by multidisciplinary teams, information and donation. The role of physicians, family, bioethical and legal framework is reviewed.

Results

In 2017, 2183 donations were made in Spain. Of these, only two (0.1%) occurred in children younger than one month: a cardiac transplantation from a donor who died 5 days after birth and a multivisceral transplantation from a donor who died 6 days after birth. Between 2006 and 2017, the ONT recorded 27 effective donations (e. g. donors from whom at least one organ was removed) in children under 32 days old. The organs transplanted were as follows: 10 hearts, 9 kidneys, 7 lungs, 7 livers and 1 bowel. The average weight of these donors was 3419gr and their average length was 51cm. We present our experience with three potential donor fetuses: an anencephalic fetus, a severe hydrocephalus and a fetus with alobar holoprosencephaly, diagnosed at 34, 30 and 31 weeks of gestation respectively. All of them were Arabic, with poor antenatal care and vaginal deliveries at term. Counselling by multidisciplinary teams with "decoupling" interviews with family members took place. None of them could be a donor: the anencephalic fetus due to difficulties of donation after circulatory determination of death, the hydrocephalus due to lack of time and the third due to family refusal.

Conclusion

1. Neonatal donations are insufficient, many children die while waiting for a needed organ.
2. Some physicians are not even aware of the potential for transplantation when fetal lethal abnormalities are diagnosed.
3. Even if solid organs are not suitable for recovery, tissue donation may be considered.
4. We have the opportunity to turn the end of life into hope.