



## Organ Procurement After Euthanasia: Belgian Experience

D. Ysebaert, G. Van Beeumen, K. De Greef, J.P. Squifflet, O. Detry, A. De Roover, M.-H. Delbouille, W. Van Donink, G. Roeyen, T. Chapelle, J.-L. Bosmans, D. Van Raemdonck, M.E. Faymonville, S. Laureys, M. Lamy, and P. Cras

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### ABSTRACT

Euthanasia was legalized in Belgium in 2002 for adults under strict conditions. The patient must be in a medically futile condition and of constant and unbearable physical or mental suffering that cannot be alleviated, resulting from a serious and incurable disorder caused by illness or accident. Between 2005 and 2007, 4 patients (3 in Antwerp and 1 in Liège) expressed their will for organ donation after their request for euthanasia was granted. Patients were aged 43 to 50 years and had a debilitating neurologic disease, either after severe cerebrovascular accident or primary progressive multiple sclerosis. Ethical boards requested complete written scenario with informed consent of donor and relatives, clear separation between euthanasia and organ procurement procedure, and all procedures to be performed by senior staff members and nursing staff on a voluntary basis. The euthanasia procedure was performed by three independent physicians in the operating room. After clinical diagnosis of cardiac death, organ procurement was performed by femoral vessel cannulation or quick laparotomy. In 2 patients, the liver, both kidneys, and pancreatic islets (one case) were procured and transplanted; in the other 2 patients, there was additional lung procurement and transplantation. Transplant centers were informed of the nature of the case and the elements of organ procurement. There was primary function of all organs. The involved physicians and transplant teams had the well-discussed opinion that this strong request for organ donation after euthanasia could not be waived. A clear separation between the euthanasia request, the euthanasia procedure, and the organ procurement procedure is necessary.

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**T**HE DONATION after cardiac death (DCD) method of donation has been deemed an ethically appropriate means of organ donation and is supported by the organ procurement and medical communities and by the public. DCD allows patients with severe irreversible brain injuries that do not meet standard criteria for brain death to donate organs when death is declared by cardiopulmonary criteria. The same is true in case of unsuccessful reanimation. This had led to successful organ retrieval in various situations in non-heart-beating donors.<sup>1</sup> However, when the diagnosis of cardiac death is controversial, organ retrieval from DCD donors could be debatable. Although euthanasia is banned in almost all countries of the world, it was legalized in Belgium<sup>2</sup> in 2002 for adults under strict conditions after a similar law was adopted in the Netherlands in 2001. Euthanasia is defined here as intentionally terminating life by a physician at the request of a legally competent adult, conscious when making the request. The request must be

voluntary, well-considered, repeated, and not the result of any external pressure. The patient must be in a medically futile condition and in constant and unbearable physical or mental suffering that cannot be alleviated, resulting from a serious and incurable disorder caused by illness or accident. If the patient is not in the terminal phase of illness, the two physicians performing the act of euthanasia must consult with a third physician, either a psychiatrist or a specialist in

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From the Transplantation Centers of Antwerp University Hospital (D.Y., G.V.B., K.D.G., W.V.D., G.R., T.C., J.-L.B., P.C.); and CHU de Liège (J.P.S., O.D., A.D.R., M.-H.D., M.E.F., S.L., M.L.), University of Liège, Liège; antwerp; and University Hospital Gasthuisberg (D.V.R.), Leuven.

Address reprint requests to D. Ysebaert, Department of Hepatobiliary, Transplantation, and Endocrine Surgery, Antwerp University Hospital, Wilrijkstraat 10, B-2650 Edegem, Belgium. E-mail: [dirk.ysebaert@uza.be](mailto:dirk.ysebaert@uza.be)

the disease concerned. At least 1 month must pass between the written request and carrying out the act. Every mercy killing must be reported to a federal commission that would regulate the practice and bring prosecution when necessary. However, the World Medical Association<sup>3</sup> considers both euthanasia and assisted suicide to be in conflict with basic ethical principles of medical practice and has adopted strong resolutions condemning both practices, urging all national medical associations and physicians to refrain from participating in them even if national law allows or decriminalizes the practices. However, can a request for organ donation after euthanasia be denied if the patient strongly expresses the will for donation?

#### METHODS

Between 2005 and 2007, four patients (3 in Antwerp and 1 in Liège) in two Belgian university hospitals expressed their will for organ donation after their request for euthanasia was granted. Patients were aged 43 to 50 years, and all had a debilitating neurologic disease, either after severe cerebrovascular accident or primary progressive multiple sclerosis. They were totally dependent on third parties for personal care and were without quality of life.

Extensive discussion with local ethical committees and directive boards prepared the procedures of organ retrieval in this situation: complete written scenario with informed consent of donor and relatives, clear separation between euthanasia procedure and organ procurement procedure, and all procedures to be performed by senior staff members and nursing staff on a voluntary basis.

#### RESULTS

The euthanasia procedures were carried out on the date requested by the patient, by three physicians independent from procurement or transplant teams, in the operating room. After clinical diagnosis of cardiac death, the procurement team performed organ procurement by femoral vessel cannulation (double-balloon triple-lumen catheter) and

quick laparotomy for topical cooling. In 2 patients, the liver, both kidneys, and pancreatic islets (one case) were procured and transplanted; in 2 patients, there was additional lung procurement and transplantation. For these lung procurements, the body was intubated after cardiac death and mechanically ventilated. Organ allocation was performed by Eurotransplant (allocation 4 hours before) in Belgium and the Netherlands, the only two countries with euthanasia legislation. Transplant centers were informed of the nature of the case and the elements of organ procurement. There was primary function of all organs.

#### DISCUSSION

The involved physicians, the transplant team, and the institutional ethics committee had the well-discussed opinion that this strong request for organ donation after euthanasia could not be waived. The potential in Belgium (and the Netherlands) could be substantial. According to the Federal Control and Evaluation Committee Euthanasia in Belgium, the percentage of patients with debilitating neurologic disease with their request for euthanasia granted was between 5.0% and 9.5% of all euthanasia cases between 2003 and 2005. Of most importance is the necessity of a clear separation between the euthanasia request, the euthanasia procedure, and the organ procurement procedure.

#### REFERENCES

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