In 2002, Belgium was the second country in the world, after the Netherlands, to legalize physician-assisted death and euthanasia in very restricted conditions [1]. Euthanasia has to be required by a conscious patient suffering from an irreversible affliction inducing physical and/or psychological suffering, with no hope for improvement or for rapid spontaneous death; request for euthanasia has to be written by the patient or by his (her) representative who has no interest in the patient death; patient’s general and psychiatric health status has to be confirmed by an external medical expert; request for euthanasia and the procedure itself have to be separated by at least 30 days.

We report herein the case of a patient who requested that her organs be donated after physician-assisted death. These two separate processes were performed according to the Belgian legal requirements for euthanasia and organ procurement and guidelines for organ donation after cardiac death [2,3].

A 44-year-old woman was suffering from locked-in syndrome after brain stem vascular accident [4]. She was fully conscious and communicated only with eyelid movement. She spontaneously breathed through a tracheostomy and was fed through a gastrostomy. After 4 years of this assisted life, she asked for physician-assisted suicide according to the Belgian law. She was examined by a psychiatrist and a neuropsychologist who excluded depression and confirmed preserved cognitive function, and by an independent palliative care physician who confirmed dismal medical prognosis and the patient’s willingness to die. Euthanasia was granted and scheduled for a month later, as required by the Belgian law.

The day before the euthanasia, the patient expressed her will of after-death organ donation. The ethical and legal possibility of combination of the two separate processes, physician-assisted suicide and after-death organ donation was then considered and agreed by the institutional ethical committee president.

The intravenous euthanasia procedure was performed according to the regular protocol, in the presence of the patient’s husband, in a room adjacent to the operative room. The patient was in her regular hospital bed. No member of the transplant team was present during the euthanasia. When the patient’s death was declared by three independent physicians after 10 min of absence of cardiac activity, her cadaver was placed on the operative table. The liver and both kidneys were harvested and transplanted according to the regular Eurotransplant organ allocation rules for after-death organ donation [3]. Currently, more than 1 year later, all three recipients are enjoying a normal graft function.

This case of two separate requests, first euthanasia and second, organ donation after death, demonstrates that organ harvesting after euthanasia may be considered and accepted from ethical, legal and practical viewpoints in countries where euthanasia is legally accepted. This possibility may increase the number of transplantable organs and may also provide some comfort to the donor and his (her) family, considering that the termination of the patient’s life may somehow help other human beings in need for organ transplantation.

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