EDITORIAL VIEW

Terminating the ventilatory support: an ethical dilemma

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ABSTRACT

Intensive care physicians in modern set ups frequently have to face a dilemma in which they have to vote for a choice to sustain or to withdraw ventilatory treatment in terminally sick patients. The rapidly developing science of organ transplantation has given birth to many new questions, some of which still remain unanswered. Although most of the main religions have somehow endorsed organ harvesting from these patients to sustain the life of some other sick persons, and although many countries have clear guidelines authenticated by the legislation, clinicians in many countries still have to answer these questions based upon their experience and other factors. Many of them refuse to accept the option of terminating life supporting treatment including ventilatory therapy. In this editorial the later viewpoint has been discussed by the esteemed author.

Key words: Ventilator support withdrawal; Infant; Newborn; Brain death; Organ transplantation

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Almost in every moment of every day of their professional life, intensive care physicians have to make choices. Choices like what diagnostic procedure to perform so as to save valuable time for their patient; what other specialists to consult in order to establish the right diagnosis and what treatment to apply to someone who is at the verge of life and death. Should an intensive care physician be encumbered with a choice to sustain or to withdraw treatment? This is the point at which intensive care medicine is seen to be colliding with ethics, philosophy and the religion. The dilemma regarding ethical issues has been resolved by the respective state legislatives in most of the countries, but not all.

The advances in medical technology, especially pertaining to critical care medicine, along with aggressive resuscitation protocols have expanded the possibilities for dying people to survive. Thus, the line in between life and death has been blurred. Unfortunately, sometimes it is at the cost of significant mental and physical handicap. The patient is virtually trapped in the intensive care unit in a weird but abnormal blend of life and death, not being able to participate in human life activities, and not being allowed to die either. Before the advances in medical technology, determination of death was easy: a patient was dead when cessation of breathing and heart beat was confirmed. No one ever tried to reverse death. However, in the age of organ transplantation, the practice of recovery of viable organs from otherwise dead humans has changed the things dramatically.[1]

The historical evolution of the concept of death from a cardiorespiratory failure to a brain failure was established in 1968, when the Harvard criteria equated irreversible coma and apnea (i.e., brain death) with human death and later, when the Uniform Determination of Death Act was enacted permitting organ procurement from heart beating donors. Since then, clinical studies have defined a spectrum of states of impaired consciousness in human beings: coma, minimally conscious state, vegetative state and brain death.[2]

The USA and EU countries have very precise legal definitions and guidelines for almost all the situations regarding withholding of ventilatory support to the person considered to be brain dead. There have been precise protocols for both adult patients and for children and neonates as well.[3-8]

The practice of withholding life support (ventilator support in most of the cases), in order to harvest organs for transplantation, is tolerated by the four major word religions as well: The Orthodox Church

permits transplantation from one man to another and transplantation is strongly recommended from the standpoint of Christian morality. These attitudes are accepted and respected by the Roman Catholic Church, Reformers, Judaism and Islam as well.[9-11]

Studies and systematic reviews of literature for ventilator support withdrawal, trying to elucidate approach to withdrawing ventilator support, equally reveal a great deal of diversity between the studies on both criteria for ventilator support withdrawal as well as the technique (extubation or no extubation, premedication or no premedication etc.) itself.[12,13] In other words, what practice reveals are differences, not only between institutions in the same country or state, but between the different profiles of doctors in the same institution (for example anesthesiologists and surgeons on one side and pediatricians and internists on the other) and even between doctors in the same department of an institution. There has been high level of diversity in life support withdrawal practice between doctors and nurses of the same hospital as well.[14,15]

On this occasion, what has been well established practice for almost half a century, and has undoubtedly saved many lives shall not be discussed. Instead, it is contemplation on the other aspects of the problem that are arising some serious skepticism over ventilator support withdrawal in a brain dead, all the more so if it serves noble purpose of organ harvesting for transplantation.

Researches reveal that withholding life support legislation is well defined in the countries with developed transplantology.[1] As the organ transplantation in the Republic of Macedonia is not developed, there is no legal possibility for withdrawal of ventilatory support. On the contrary, there is clear criminal sanction against the physician who will engage himself in cessation of ventilatory support, defined both as "murder with noble motives", "grave body injury" and "not giving help".[16]

And finally, there are physicians debating on redefining brain death, pointing out that the absence of brain stem function can hardly be assessed with bedside techniques.[17,18] It superimposes the question what exactly 'brain death' is and have we been misunderstanding the 'brain death' concept? Or even worse: have we been making misapplication of it? A study reported that many highly regarded hospitals in the U.S. routinely diagnose 'brain death' without following the guidelines proclaimed in 1995 by the American Academy of Neurology (AAN). Researchers at the Massachusetts General Hospital surveyed the top 50 neurology and neurosurgery departments nationwide; 82 percent responded. Results showed that 'adherence to the AAN guidelines varied widely', resulting in major differences in practice, which may have consequences for the determination of death and commencement of transplant procedures. Apnea testing was ignored by 27 percent.[19] Not checking for spontaneous respirations might be worrying indeed.

Commenting on this Particular survey, the editor-in-chief of the *Journal of American Physicians and Surgeons*, Dr. Lawrence Huntoon, posted online: "the survey indicates a high likelihood that some patients are being 'harvested' in some hospitals before they are dead! In hospitals with aggressive transplant programs (hospitals make a huge amount of money on transplant cases), making sure a patient is dead before going to the 'harvesting suite' may be viewed as a 'minor technicality/impediment'.[20]

Even if it is in order to save human life by procuring organs for transplantation, to me, somehow it seems to be unacceptable.

Fifteen years ago, there was a case of 15 months old toddler in the ICU at the University Children's Hospital in Skopje. The child was comatosed as a result of battered child syndrome. After there were no brain stem reflexes and three consecutive EEG recordings showed no electrical activity, the head of department and whole of the ICU team were thinking of withdrawing ventilatory support. That was the first time my unit faced the slippery ethical issues of ventilatory support withdrawal. It was also an opportunity for the whole of the team to consult the existing legislation of the Republic of Macedonia regarding this matter. The analysis of the Criminal Code of Republic of Macedonia made it clear that in Macedonian legislation there was no option to withdraw ventilator, or any kind of life support without being accused for at least three criminal acts according to the Criminal Code of Republic of Macedonia: 'murder with noble motives', 'grave body injury' and 'not giving help'.[16]

So that even if the dilemma exists for an intensive care physician in my country whether to withhold ventilatory support or not, it is resolved by the law. Fifteen years later, the law has underwent many changes, but not in the part regarding this issue.

My point of view on this issue has somewhat evolved over the years. At that time I thought that my country's legislation regarding this matter is very primitive and needed upgrading according to the EU and USA laws. Back then I was about to start an initiative to form an Ethical Committee in order to define clearly conditions in which life support will be withheld. However, after gaining years of experience, and after seeing many controversial papers regarding this issue, I don't think so now.

Would I withdraw ventilator support?

The rationale for withdrawal of ventilatory support might be when it is considered that the infant has

already entered the process of dying, or where the continuation of assisted ventilation might well allow the infant to survive, but at an expense of severe neurodevelopmental disability.

The arguments "FOR" are mainly related to the issue of the so called 'quality of life'. This in particular means that an infant might well survive as a result of continuing ventilatory support, but the quality of life is seriously called into question. In other words, it means the infant will not be able to participate in human experience and it will leave him or her forever dependent on a caregiver for everyday living because of substantial neurodevelopmental or physical handicap.

I clearly vote: "AGAINST". The arguments I consider important are the following:

First and foremost, 'quality of life' is a matter of subjective perception.

Second, we can hardly be certain about the extent of any predicted handicap, especially in infants and neonates.

Third, the infant cannot take part in the decision making.

And last, but not least, no one has the right to 'act like God' and take life upon his own judgment whether death or survival with severe handicap is the better of the two.

The only thing that is certain almost half a century after the Harvard Ad Hoc Committee, is the imprecision of the medical science in outlining the 'brain death' and its exact clinical, biological and electrophysiological hallmarks. The imprecision in the determination of states of impaired consciousness (including brain death) have not been revealed to the general public nor have they been broadly debated by the community, both medical and religious. Obtaining organs for transplantation from heart-beating patients with impaired consciousness is actually a concealed practice of physician-assisted death. Therefore it violates both the criminal laws and central principles of medical deontology based upon the 'do-no-harm' principle. Society must decide if assisted death is permissible, legal and acceptable.[21]

If, even after fifty years, there are still uncertainties about terminating ventilatory support to brain dead patients, should acting out on compulsion and terminating ventilatory support in a person, who is not brain dead yet, be approved?

Definitely NO!

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