

Short Communication Open Access

New Bioethical Aspects of Ending of Life in Unresponsive Wakefulness Syndrome/Vegetative State Patients

Francesco Arcuri, Maria Daniela Cortese and Giuliano Dolce*

Research in Advanced Neurorehabilitation (RAN), S. Anna Institute, Crotone, Italy

Short Communication

The active abandonment of patients in Unresponsive Wakefulness Syndrome/Vegetative State (UWS/VS) [1] is a topic that has been widely discussed in recent decades by individual authors advocating directly opposite points of view.

The reason is that the issue is approached from different schools of thought, sometimes opposing each other, which envelope their views in a false contrast between religious and secular bioethics, supported by the intransigence of their specific ideology or religious beliefs.

Recent progress in scientific research, on the physiopathology of UWS/VS, and the high rate of misdiagnosis [2] now allows us to consider the issue of ending of life, by active suspension of nutrition and hydration from a new point of view, which might break down the existing contrast and bring the two ideologies together.

In industrialized countries where euthanasia is authorized the question is regulated by the laws of the land and is not discussed in this paper.

There are, however, several other countries where, instead of euthanasia, ending of life, by active suspension of nutrition and hydration is practised in that it can be authorized by appropriate courts-respect for a declaration in advance, or a living will, allows people to express their wishes, concerning treatments that they intend to accept or not, in case they find themselves in a position to no longer be able to do so as set out in the Oviedo Convention in 2001¹. This will obliges physicians to respect the patients' wishes in full awareness; Italy also signed this Convention, but it has not yet been ratified. This practice basically applies to all industrialized countries.

The widely debated question is whether artificial hydration and nutrition (AHN) is or not a medical act and, thus a true form of therapy or an obligation that concerns the fully disabled person who is therefore not able to oppose measures taken by others even if they are legally correct.

The doubt that AHN in these patients might be considered as actual medical actions is due to the fact that to perform them it is necessary to place a nasogastric feeding-tube or a PEG (Percutaneous endostomic gastrostomy) feeding-tube, which requires the intervention of a surgeon. It should also be remembered that hydration and nutrition are deemed as indispensable actions to ensure the basic physiological conditions to live, albeit when they are applied by not natural or artificial means. That is fundamental to establish that the method of administration cannot be the only way to determine whether an action can be considered medical or not.

It could be interesting to understand the standpoint and decision of the physician, which can directly lead to the death of a patient, as would be the case if hydration and nutrition were suspended, in a few days or weeks.

¹Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine; art. 9, Council of Europe, 4 April 1997.

If, however, the issue were addressed objectively by a scientific approach, and not a moral or religious one, it could be settled using new scientific knowledge rather than religious or moral ideals based on different cultures and even the degree of civilization of an individual people.

For several decades UWS/VS has been considered as a condition determined by a severe acquired cerebropathy that deprives the patient of any mental activity, even the simplest, and the subsequent definitive loss of all functions that enable interaction with the outside world.

The suspension of hydration and nutrition leads to death with atrocious pain in a few days or up to a maximum of two weeks, regardless of the patient's clinical status.

Even treatment with painkillers is not possible because any form of therapy, thus including that against pain, is not permitted.

Although until not so long ago, because of the lack of evidence, we supposed that a patient with UWS/VS did not feel any physical pain. This supposition is no longer possible, following scientific research, the value of which cannot be denied by other opinions on traditional bioethics.

Neuroimaging and electrophysiology have provided better knowledge of the cerebral processes that activate during the administration of emotional stimuli, in patients with severe disorders of consciousness (DoC) [3]. However, in these patients, the quantification of pain and suffering, as well as pleasure and happiness, are still a great challenge [4]. Papers published so far show that patients with severe DoC might display patterns similar to those of conscious activity [5], but these patterns might only be neuronal processes and not phenomena connected to conscious activity [6,7]. However, response to nociceptive stimulus has been observed in UWS/VS patients [8], and thus, as reported in several papers, it cannot be excluded that these patients feel pain [9-11]. Furthermore, scoring systems to assess response to nociceptive stimulus response, in patients with UWS/VS, have been designed and tested [12,13] to help to distinguish MCS from VS according to behavioural reaction to the nociceptive stimulus and not to its presence or absence.

In conclusion, papers published until now have highlighted that in patients with UWS/VS the nociceptive reaction can be expressed. This

*Corresponding author: Giuliano Dolce, Research in Advanced Neurorehabilitation, S. Anna Institute, Crotone, Italy, Tel: 39 081 807 5599; E-mail: giulianodolce@libero.it

Received March 24, 2016; Accepted April 21, 2016; Published April 25, 2016

Citation: Arcuri F, Cortese MD, Dolce G (2016) New Bioethical Aspects of Ending of Life in Unresponsive Wakefulness Syndrome/Vegetative State Patients. Brain Disord Ther 5: 213. doi:10.4172/2168-975X.1000213

Copyright: © 2016 Arcuri F, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

new knowledge, because of its scientific value, pending legal decisions, which normally take a long time to follow the effects of progress, obliges physicians to base their actions on rational bioethics.

In an industrialized country suspending hydration and nutrition is not acceptable, because of the subsequent very poor condition and very severe physical pain.

In conclusion, without a shadow of a doubt, a physician might be accused of a crime that is far more serious than simply letting a patient die, that is to say letting a patient with a severe degree of disability die through a long period of suffering that might constitute an actual crime of torture, and might involve individuals that are aware of it.

All authors have contributed to the drafting and revisions of the manuscript, and have approved the submitted version. The Authors declare they have no financial or non-financial competing interests.

References

- Laureys S, Celesia GG, Cohadon F, Lavrijsen J, León-Carrión J, et al. (2010) Unresponsive wakefulness syndrome: a new name for the vegetative state or apallic syndrome. BMC Med 2010; 8: 68.
- Schnakers C, Vanhaudenhuyse A, Giacino J, Ventura M, Boly M, et al. (2009)
 Diagnostic accuracy of the vegetative and minimally conscious state: clinical
 consensus versus standardized neurobehavioral assessment. BMC Neurol 9:
 35.
- Laureys S, Owen A, Schiff N (2004) Brain function in coma, vegetative state, and related disorders. Lancet Neurology 3: 537-546.

- Demertzi A, Racine E, Bruno MA, Ledoux D, Gosseries O, et al. (2013) Pain Perception in Disorders of Consciousness: Neuroscience, Clinical Care, and Ethics in Dialogue. Neuroethics 6: 37-50.
- Riganello F, Candelieri A, Quintieri M, Dolce G (2010) Heart Rate Variability, Emotion and Music. J. Psychophysiol 24: 2024-2034.
- Celesia GG (2013) Conscious awareness in patients in vegetative states: myth or reality? Curr Neurol Neurosci Rep 13: 395.
- Celesia GG, Sannita WG (2013) Can patients in vegetative state experience pain and have conscious awareness? Neurology 80: 328-329.
- 8. Sklar J (2013) People in a vegetative state may feel pain. New Sci 217: 14.
- De Tommaso M, Navarro J, Lanzillotti C, Ricci K, Buonocunto F, et al. (2015) Cortical responses to salient nociceptive and not nociceptive stimuli in vegetative and minimal conscious state. Front Hum Neurosci 9.
- Kassubek J, Juengling FD, Els T, Spreer J, Herpers M, et al. (2003) Activation of a residual cortical network during painful stimulation in long-term postanoxic vegetative state: a 15O-H2O PET study. J Neurol Sci 212: 85-91.
- 11. Zanatta P, Messerotti Benvenuti S, Baldanzi F, Bendini M, Saccavini M, et al. (2012) Pain-related somatosensory evoked potentials and functional brain magnetic resonance in the evaluation of neurologic recovery after cardiac arrest: a case study of three patients. Scand. J Trauma Resusc Emerg Med 20: 22.
- Riganello F, Cortese MD, Arcuri F, Candelieri A, Guglielmino F, et al. (2014) A study of the reliability of the Nociception Coma Scale. Clin.Rehabil 29: 388-393.
- Schnakers C, Chatelle C, Vanhaudenhuyse A, Majerus S, Ledoux D, et al. (2010) The Nociception Coma Scale: a new tool to assess nociception in disorders of consciousness. Pain 148: 215-219.