ARCHIVED: WORLD MEDICAL ASSOCIATION STATEMENT ON PERSISTENT VEGETATIVE STATE

Adopted by the 41st World Medical Assembly Hong Kong, September 1989
and rescinded at the WMA General Assembly, Santiago 2005

Preamble

Present requirements of health reporting fails to provide an accurate estimate of the incidence and prevalence of worldwide individuals in a persistent vegetative state (PVS). Ten years ago, a prevalence of 2 to 3 per 100,000 was estimated for Japan. It seems likely that the absolute number of such cases has risen appreciably as a consequence of current practices in critical medicine, cardiorespiratory support, parenteral feeding, and control of infections in severely brain damaged patients. How to deal with this emotionally painful, financially costly, and generally unwanted outcome of modern medical treatment is an increasing problem.

Persistent Vegetative State

Pathologic loss of consciousness may follow a variety of insults to the brain including, among others, nutritional insufficiency, poisoning, stroke, infections, direct physical injury, or degenerative disease. Abrupt loss of consciousness usually consists of an acute sleep-like state of unarousability called coma that may be followed either by varying degrees of recovery or severe, chronic neurologic impairment. Persons with overwhelming damage to the cerebral hemispheres commonly pass into a chronic state of unconsciousness called the vegetative state in which the body cyclically awakens and sleeps but expresses no behavioral or cerebral metabolic evidence of possessing cognitive function or of being able to respond in a learned manner to external events or stimuli. This condition of total cognitive loss can follow acute injuries causing coma or can develop more slowly as an end result of progressive structural disorders, such as Alzheimer's disease, that in their end stages also can destroy the phychological function of the cerebrum. When such cognitive loss lasts for more than a few weeks, the condition has been termed a persistent vegetative state (PVS) because the body retains the functions necessary to sustain vegetative survival. Recovery from the vegetative state is possible, especially during the first few days or weeks after onset, but the tragedy is that many persons in PVS live for many months or years if provided with nutritional and other supportive measures.

Recovery

Once qualified clinicians have determined that a person is awake but unaware, the permanence of the vegetative state depends on the nature of the brain injury, the duration of the period of unawareness, and the estimated prognosis. Some persons less than 35 years old with coma after head trauma, as well as an occasional patient with coma after intracranial hemorrhage, may recover very slowly; thus, what appears to be a PVS at one to three months after an event causing coma may in rare cases evolve into a lesser degree of impairment by six months. On the other hand, the chances of regaining independence after being vegetative for three months are vanishingly small. Rare exceptions are claimed, but some of these may have represented patients who entered an unrecognized locked-in state shortly after reawakening from a coma-causing injury. Ultimately, all have been severely disabled.

Guidelines

These rare examples notwithstanding, the data indicate that unawareness for six months predicts nonrecovery or overwhelming disability with a high degree of certainty regardless of the nature of the insult to the brain. Therefore, a conservative criterion for the diagnosis of PVS would be observed unawareness for at least 12 months although cognitive recovery after six months is exceedingly rare in patients over 50.

The risk of prognostic error from widespread use of the above criterion is so small that a decision that incorporates it as a prognostic conclusion seems fully justifiable. A physician's determination that a person is unlikely to regain consciousness is the usual prelude to deliberations about withdrawing or withholding life support. Although the family may be the first to raise the issue, until a physician has ventured an opinion about prognosis, the matter of withholding treatment is not generally considered. Once the question of withholding or withdrawing life support has been raised, its legal and ethical dimensions must be considere.

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