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References

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The Penn State Anesthesia Electronic Case Conference

To the Editor—The Internet, once the domain of the military and research scientists, is becoming a useful resource for the anesthesia community. The ease of use and richness of information within the World Wide Web is quickly making it the most popular area of the Internet.

Anesthesia Case Conferences, held within virtually every academic center in the United States, is a place where anesthesiologists gather to discuss patient management issues. Unusual cases are presented and discussed by the group. In the past, access to these discussions was limited to the hospital of occurrence. Access by the private practitioner was almost nonexistent.

The Penn State Anesthesia Electronic Case Conference combines
Coma and Vegetative State Are Not Interchangeable Terms

To the Editor—Alkire et al.1 used positron emission tomography (PET) scanning technology to characterize cerebral metabolism during propofol anesthesia. In the discussion, the authors refer to Levy et al.’s paper2 to state that global cerebral metabolism of glucose (CMRGlu) in comatose patients is reduced by 60%. However, the patients studied by Levy et al. were not comatose patients, but patients in a “vegetative state” or in a “locked-in syndrome.”

Unfortunately, physicians interchange these categories and consider the vegetative state in patients to be a coma state. In the early 1970s, Jennett and Plum3 clearly identified such categories of patients, and great effort is made internationally to identify these categories of patients because of several ethical dilemmas.4 Patients in a coma state are unconscious because they lack both wakefulness and awareness. Patients in a vegetative state are in a clinical condition of complete unawaresness of self and environment, but they have sleep-wake cycles and complete or partial preservation of hypothalamic and brainstem autonomic functions. The locked-in syndrome refers to a state in which consciousness and cognition are retained, and patients in this condition can communicate through eye-movement signals.

In a recent study,6 we demonstrated that patients with different disturbances of consciousness have different CMRGlu. Comatose patients have a 45% reduction of global CMRGlu (range in the discrete cerebral areas 54–54%), whereas patients in the vegetative state have a global CMRGlu reduction (according to the length of their vegetative condition) ranging from 49% to 65% (range in the cerebral areas 56–72%) from control normal subjects.

I recommend that we, as physicians and anesthesiologists, in particular, should not increase the confusion regarding the terminology used to describe patients in such different clinical conditions.

References

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