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Nervous System

IRREVERSIBLE COMA Our primary purpose is to define irreversible coma as a new criterion for death. There are two reasons why there is need for a definition: (1) Improvements in resuscitative and supportive measures have led to increased efforts to save those who are critically injured. Sometimes these efforts have only partial success, so that the result is an individual whose heart continues to beat but whose brain is irreversibly damaged. The burden is great on patients who suffer permanent loss of intellect, on their families, on the hospitals, and on those in need of hospital beds already occupied by these comatose patients. (2) Obsolete criteria for the definition of death can lead to controversy in obtaining organs for transplantations. (*Ad Hoc Committee of the Harvard Medical School to Examine the Definition of Brain Death: A Definition of Irreversible Coma*, J.A.M.A. 205: 337 (Aug.) 1968.)

ELECTRICAL ANESTHESIA The parallel disappearance of responsiveness and of cortical-evoked responses suggests that electroanesthesia is largely a cortical phenomenon. Since pulses of relatively high frequency are used, it appears likely that synaptic mechanisms may be affected. Spreading depression does not appear to be a likely explanation, since the recovery time for evoked potentials is short and the impedance values do not change significantly. The disappearance of cortical recruiting responses and of somato-sensory, visual, and auditory potentials suggests that cortical processing of afferent impulses is markedly affected. (*Larson, S. J., and Sances, A.: Physiologic Effects of Electroanesthesia, Surgery* 64: 281 (July) 1968.)

TETANUS Alimentation during tetanus is extremely difficult, since the caloric requirement is 7,000 to 8,000 calories per day for an adult. The old belief that the high caloric requirement is due to muscle spasm is no longer tenable, since complete curarization does not change this requirement and does not give any improvement in nitrogen balance. During intensive therapy for tetanus, the authors use a mixture of synthetic amino acids combined with carbohydrates and ethyl alcohol administered through a catheter inserted via the jugular vein into the vena cava. Emulsions of fat have been unsatisfactory. As soon as possible, feedings through a nasogastric tube are added. (*Schultis, K., and L'Allemand, H.: The Nutrition of Tetanus Patients, Der Anaesthetist* 17: 196 (June) 1968.)