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Brain Death Dilemmas Of The Poisoned Patients

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The widespread use of mechanical ventilators in ICU transformed the course of terminal neurologic disorders, where vital sign can be maintained after the brain has ceased. In 1959, Mollaret and Goulon introduced the term coma despasse (irreversible coma) that nowadays it's called brain death. Brain death is unfortunate clinical entity encountered in day to day practice . The UDDA (Uniform Determination of Death Act) in 1981, and The American Academy of Neurology described that brain death is irreversible cessation of all function of the entire brain, including brain stem, with clinical features absence of movement, breathing, and brain stem reflexes. The clinical examination who are presumed to the brain death must be performed with precision, because the clinical pattern is not sufficient to confirmed in all cases. A brain death diagnosis needs a prerequisite and a differential-diagnosis process to exclude states mimicking brain death (hypothermia, metabolic disorders, drugs, or neurological diseases). Bedside testing at least by two senior physician (Intensivist, Neurologist, and Neuro surgeon) that used in most countries are: pain responses, oculocephalic reflex, vestibulocular reflex, apnea testing, and confirmatory testing with EEG, Cerebral Angiogram, Transcranial Doppler, and Cerebral Blood Flow Scan. According to the Evidenced-Based Guideline update: determining brain death suggests that the clinician should exclude the presence of a central nervous system-depressant drug effect by history, drug screen, and calculation of clearance using five times drugs half-life. However, there may be limitations to this approach, because drug or toxin screening is not comprehensive, so a negative drug screen does not exclude intoxication. Routine urine toxicologic immunoassays have limited sensitivity, even for common drugs, so a negative screen should not be used to exclude drug intoxication, and a positive urine screen cannot be used to assess the degree of intoxication. Prolonged half-lives may cause by delay in gastric emptying, gut hypomotility, and hypoperfusion of GI tract by hypotension or splanchnic vasoconstriction. Although most hospital laboratories can measure serum concentrations of some common drugs or toxin, there are many that cannot be measured in a clinically relevant time frame. The other dilemmas in ICU setting is when the sustainable therapy is unresponses again such as vasoactive and inotropic drugs to support cardiac output and oxygen delivery. Most countries not allowed active euthanasia, however withholding and withdrawing still serious debate about the legacy. It is need closed communication by multi-diciplinary, ethic committee include family and surrogate family.

Key words: The Diagnosis of Brain Death and Determining Brain Death in Drug Overdose