

LETTERS TO THE EDITOR

Ketamine in Shock

Contribution #49

To the Editor: We noted with interest the article of Hartung, et al (1) who reported on the use of ketamine as an anesthetic agent in dogs subjected to hemorrhagic shock. They concluded that ketamine administered in small doses of 0.5 mg/kg BW to patients with hypovolemic shock does not lead to definite circulatory changes and, therefore, is a suitable anesthesia induction agent in such situations. Their monitoring was apparently confined to arterial pressure and ICP. The authors may be unaware of the possible dangers involved with the use of ketamine.

We have studied the hemodynamic and O<sub>2</sub> transport effects of ketamine anesthesia in 22 critically ill patients (2). There was an early progressive increase in heart rate, card. ind., arterial and venous pressures, stroke work, and O<sub>2</sub> delivery; O<sub>2</sub> consumption and O<sub>2</sub> extraction decreased. Ketamine usually produced an inotropic cardiac response, but these responses were not uniform; a relatively small percentage had reduced pressures and flow and reduced myocardial performance that were related to hypovolemia and associated medical conditions. We believe the variability of ketamine responses in critically ill patients is attributable to the balance between a direct myocardial depressant effect and a stimulatory sympathomimetic action of ketamine. Although ketamine for induction may be the agent often used in emergencies, in severe hypovolemia, its adverse effects, even in small doses, may lead to severe hypotension and cardiac arrest.

(1) Hartung et al. Ketamine induced anesthesia in hemorrhagic shock and increased intracranial pressure. *Disaster Medicine* 1983; Vol. 1, p.285 (from WAEDM).

(2) Lippmann M, Appel PL, Mok MS, Shoemaker WC: Sequential cardiorespiratory patterns of anesthetic induction with ketamine in critically ill patients. *Critical Care Medicine* 1983; Vol. II, No. 9, p.730.

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Contribution #50  
Nuclear War and the Animal Kingdom

To the Editor: In connection with the resolutions for preventing nuclear war recently adopted by various international medical organizations, we want to point out that at the 22nd World Veterinary Congress, "Veterinarians Against Nuclear War" organized a non-partisan, non-political educational effort to defend all animals, including man, against suffering, disease and death by weapons of mass destruction. Our objective is freedom from the threat of nuclear, biological or chemical warfare. Man is only one of 4,000 species of mammals, all facing extinction. The lower animals have no voices. Veterinarians, therefore, will speak for them against nuclear war. We will not participate in the development, production or use of weapons of mass destruction.

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