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Commentary

Brief Note on Ketamine

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DESCRIPTION

Ketamine is an anesthetic that is used to induce and maintain anesthesia. It causes dissociative anesthesia, a trance like condition that relieves pain while also delivering sleepiness.

Ketamine anaesthesia is characterised by breathing and increased in the heart activity with the raised blood pressure moderates the bronchodilators.

Ketamine is a potential medication for pain and treatment resistant depression at lower, sub-anesthetic dosages. However, the antidepressant effect of ketamine decrease with the time, and the implications of continued usage have not been thoroughly investigated. Psychiatric side effects, as well as high blood pressure and nausea, are common. Regular users of large doses of ketamine for recreational purposes are prone to liver and urinary damage. Except for the antidepressive effect, which is the subject of considerable research and discussion, ketamine is an N-methyl-D-aspartate (NMDA) receptor antagonist, which accounts for the majority of its activities. Ketamine's qualities are reflected in its application in anesthesia. It's the medication of choice for short-term treatments that don't require muscular relaxation.

Ketamine has a distinct effect on the respiratory and circulatory systems than other anesthetics. It inhibits respiration far less than the majority of other anesthetics on the market. It stimulates rather than depresses the circulatory system when administered at anaesthetic levels. Protective airway reflexes are preserved, and ketamine anesthesia can occasionally be administered without the need of airway protection. The psychotomimetic effects of ketamine restrict its acceptability; however, they can be mitigated by using benzodiazepines or propofol. Ketamine is commonly used in patients who have been seriously injured and looks to be safe in this population. During the Vietnam Battle, for example, it was routinely utilized for emergency surgery under field settings in war zones. It is the preferred treatment for severe shock patients who are at risk of hypotension. Low blood pressure is dangerous in patients who have had a serious head injury, and ketamine is less likely to induce it and can even avoid it.

In children, ketamine can be used as a solo anaesthetic for simple operations or as an induction drug before a neuromuscular blocker and tracheal intubation. Ketamine anesthesia is very beneficial for children with cyanotic heart disease and neuromuscular problems. Infusions of ketamine are used to treat acute pain in emergency rooms and in the perioperative phase in patients with intractable pain. The dosages are commonly referred to as sub-anesthetic doses since they are lower than those used for anesthesia. Ketamine lowers morphine use, pain level, nausea, and vomiting after surgery when used in conjunction with or instead of morphine.

Ketamine is more likely to help surgical patients who are expecting significant post-operative pain, as well as opioid-tolerant individuals. Because of its efficacy and low risk of respiratory depression, ketamine is particularly beneficial in the prehospital context. In a hospital emergency department context; ketamine has equal effectiveness to opioids for acute pain management and procedural pain control. It may also help to reduce opioid induced hyperalgesia and shivering after anesthesia. Ketamine is an intravenous analgesic used to treat chronic pain, especially neuropathic pain. It also helps to prevent spinal sensitization and wind up, which are common side effects of chronic pain. Ketamine infusions were found to provide short term pain relief in neuropathic pain.

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