Prospective Audit of Short-Term Concurrent Ketamine, Opioid and Anti-inflammatory (‘triple-agent’) Therapy for Episodes of Acute on Chronic Pain.


Abstract

Aim: This prospective audit was undertaken in order to document the analgesic response and adverse effects of concurrent short-term (‘burst’) triple-agent analgesic (ketamine, an opioid and an anti-inflammatory agent – either steroidal or non-steroidal) administration, for episodes of acute on chronic pain. The clinical hypothesis in this study is that better pain control may be obtained by simultaneous multiple target receptor blockade. Method: The response of 18 patients is reported. The pain and analgesic requirement data for the 24 h before starting triple-agent therapy were compared with the last 24 h on the triple-agent therapy. Patients were then classified as responders or non-responders. Results: According to stringent clinical criteria, 12 out of the 18 patients were classified as responders. The response rate was highest for somatic pain (7/9) and appeared to decrease with duration of prior uncontrolled pain. Only four out of the 18 patients reported adverse effects and all of these were minor. Conclusions: The results suggest that this ‘burst’ triple-agent approach is safe and effective in an inpatient palliative care population during episodes of poorly controlled acute on chronic pain, and warrants further investigation to ascertain whether it gives superior results compared to the ‘gold-standard’ WHO ladder approach.

Comments

Strengths/uniqueness: This is a prospective six month 18 patient case series of palliative inpatients with a variety of terminal cancers suffering from pain with “unstable pain control”, which the authors define as moderate to severe 5-10/10 pain. The patients all had poor response to prior attempts at pain control, and all were suffering most from neuropathic and incident pain. The study attempts some stratification of patients with respect to pain type, and provides a good account of complication rates and measures of treatment success with reductions in MEDD and improved VAS pain scores. Some patients received Ketorolac as the anti-inflammatory component of their therapy, and some received dexamethasone.

Weaknesses: This is a small case series, and although prospective, it is not blinded or randomized in any way. This is, however, a difficult research question to randomize. The generalizability suffers because there is little measure of palliative performance before the treatment was begun, and there is no sense of patients’ tumor burden at the start of the study. The authors report the median parenteral MEDD before starting the protocol as 66 mg/24h, which is quite moderate in terms of the experience in Edmonton.

Relevance to Palliative Care: Controlling neuropathic and incident pain control is often challenging in palliative medicine practice, and is most distressing for both the physician and the patient. Ketamine burst protocols have been used for further NMDA blockade, reduction in total opioid dose, and re-setting of central sensitization. This study, although flawed, provides some further evidence of it’s usefulness in treating difficult to treat pain syndromes.