

KETAMINE-PAIN RELIEF FOR THE CHRONIC PAIN SURGICAL PATIENT

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Introduction: Increased Narcan usage in 2010, from 0.02 to 0.09, prompted two focus studies revealing patients with chronic and acute post-operative pain were over-sedated. An interdisciplinary pain team was established to review, monitor and explore pain relieving narcotic alternatives. Knowledge obtained from research and evidence-based practices led the team to explore sub-anesthetic Ketamine dosing.

Identification of problem: A one-day prevalence survey in 2013 revealed 50% of surgical patients answered “yes” to a chronic pain in the admission database. Chronic surgical pain patients present a challenge in safe and effective pain treatment.

Purpose of Study: In chronic pain surgical patients, will sub-anesthetic Ketamine infusions reduce self-report pain using the 0-10 scale, nausea, time of rebound pain greater than 4 after Ketamine discontinuation, decrease length of hospital stay, and without adverse effects.

Methodology: Quantitative research study employed case-control design (retrospective data and 1:1 matching protocol) comparing pain levels among chronic pain surgical patients receiving sub-anesthetic Ketamine infusion post-operatively vs patients not receiving Ketamine post-operatively. IRB approved 50 patients per group. Chronic pain types include: complex regional pain syndrome, neuropathic, fibromyalgia, acute, ischemic, and chronic. Infusions started intra-operatively vs in post-anesthesia unit at 2-25mg/hr. Pain scores averaged every eight hours until 6 hours after infusion discontinued. Nausea measured as “yes or no”.

Results: PACU averaged pain scores were 4.04 for non-Ketamine patients compared to 3.2 for Ketamine patients. 38% of patients did not experience pain greater than 4 after Ketamine discontinued, averaging 5.6 hours. Noted was: 48% decrease in nausea and subsequent treatment, 2.96 day decrease length of stay and 90% patients had no adverse effects.

Conclusion: Sub-anesthetic Ketamine is a safe effective adjunctive pain therapy with minimal side effects for chronic pain surgical patients. Rebound pain occurring up to 5.6 hours after stopping Ketamine is significant, allowing time to integrate pain plan of care to keep patients pain 4 or less or within stated pain goal.

Implications for Perianesthesia nurses and future research: Perianesthesia nurses hold a unique position in pre-emptive identification and treatment of chronic pain surgical patients. Future research identifying which chronic pain types would benefit from Ketamine is indicated.