Low-dose Ketamine for Analgesia in the Emergency Department: A Retrospective Review

https://escholarship.org/uc/item/37b2p59h

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 9(1)

1936-900X

Laeben, Lester
Niles, Christopher
Crandall, Cameron
et al.

2008

Peer reviewed
disease such as HTN is not accurate, suggesting the need for validation (either through medical record review or direct measurement) to ensure accuracy.

5 Low-dose Ketamine for Analgesia in the Emergency Department: A Retrospective Review
Lester Laeben, MD; Christopher Niles, BS; Cameron Crandall, MD; Darren Braude, MD.
University of New Mexico Department of Emergency Medicine

Background: Pain is a common complaint and is often poorly treated in the emergency department (ED). Low-dose ketamine is a known analgesic, but no reports of its use in the ED are present in the literature.

Objectives: To determine the safety and efficacy of low-dose ketamine for analgesia in the ED.

Methods: A retrospective chart review was performed to identify all adult patients receiving low-dose ketamine for analgesia in our ED. Cases were identified by pharmacy record of ketamine administration, and cases of low-dose ketamine administration were identified by review of the medical record. Low-dose ketamine was defined as the administration of approximately 0.1 to 0.6 mg/kg of ketamine for pain control.

Results: Thirty-five cases were identified in which patients received low-dose ketamine in the ED over a two-year period. Doses ranged from 5 mg to 35 mg. Administration was intravenous in 30/35 (86%) and intramuscular in 5/35 (14%) of cases. Opioids were administered, prior to a co-administered low-dose ketamine, in 32/35 (91%) of the cases. Improvement in pain was observed in 19/35 (54%) cases who received low-dose ketamine. Pain scores were not observed to improve in 8/35 (23%) cases. Insufficient data were available to determine effect for an additional 8/35 (23%). Of these latter cases, five (14% of total) had likely benefit and three (9% of total) had no benefit based on disposition. No significant adverse events were identified in any of the 35 cases.

Conclusions: The administration of low-dose ketamine in the ED appears to be safe. Our retrospective case series shows that low-dose ketamine for pain control may be efficacious in some patients in the ED. However, prospective, randomized, controlled trials are needed to determine the efficacy of low-dose ketamine for analgesia in the ED.

6 Incidence of Ovarian Tumor on 1st-Trimester Pelvic Ultrasounds in the ED
T. Paul Tran, MD; Wes Zeger, DO.
The Nebraska Medical Center

Objectives: Focused emergency department (ED) 1st-trimester pelvic ultrasound (FTPU) examination for symptomatic pregnant patients has evolved to become standard of care at major EDs. Concerns about the risks of overlooking clinically significant incidental findings on organ-specific scans – risks of omission - continue to be used by radiologists to justify the ordering of “formal” ultrasound imaging - complete regional scan performed by ultrasound technicians and interpreted by radiologist ultrasonologists. Using ovarian tumor as an index for this risk of omission, we analyzed the findings on formal pelvic ultrasounds over a five-year period for incidence of ovarian tumor and compared it with that of about 0.1% reported in OB literature.

Methods: 1,520 consecutive formal FTPUs that were performed as part of the ED evaluation of 1st-trimester pregnant patients from May 2001 to May 2006 were reviewed. Patients were included if they had vaginal bleed and/or pelvic pain and < 14 wks pregnant. Pelvic masses seen on ultrasound were recorded and followed for diagnosis of ovarian tumor. In addition, clinically important incidental findings, defined as requiring emergent interventions or definitive follow-up, were also recorded. The hospital is a Level I trauma with an EM residency and an annual census of 43,000 visits/year.

Results: A total of two for an incidence of 0.14% of ovarian tumors was found in this case series. In addition, seven (0.53%) abnormalities were clinically significant: 1 (0.07%) ovarian torsion, 1 (0.07%) kidney stone, 1 (0.07%) angiomylipoma, 1 (0.07%) gallstones, 3 (0.20%) endometrial/cervical lesion. Sixty-nine (4.54%) abnormalities were considered minor for findings such as subchorionic hematoma or leiomyomata.

Conclusions: The incidence of ovarian tumors seen in formal FTPU ordered from the ED is rare and similar to that in the normal OB population. It is unlikely that emergency medicine physicians performing focused FTPU scans will encounter increased clinically significant incidental pathology.

7 A Sexual Assault Response Team: the South Bronx Experience
Lisa Moreno-Walton, MD, MS; Mary T. Ryan, MD; Ramon Nunez, MD; Brigette Alexander, DO.
Lincoln Medical and Mental Health Center, Bronx, New York

Background: Lincoln Medical Center is the only city hospital serving the South Bronx, the poorest congressional district in the nation. In April 2004, the Bronx Sexual Assault Response Team (SART) was launched to provide specialized care to survivors of sexual assault in this community via a standardized protocol outlined in our paper.

Method: We compared the care received by survivors before and after the inception of SART.

Results: Of the 173 SART patients, 100% were triaged