44263 - EPIDURAL KETAMINE FOR POSTOPERATIVE ANALGESIA IN THE ELDERLY

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BACKGROUND: In this pilot study we examined the use of epidural ketamine as an opioid alternative for postoperative analgesia in elderly patients undergoing major abdominal surgery.

METHODS: With the approval of the local REB we approached patients older than 65 years scheduled for major abdominal surgery. After obtaining written informed consent 20 patients were allocated to receive a bolus of epidural bupivacaine 0.125% supplemented either with epidural ketamine 40mg (ketamine group) or epidural morphine 2mg (morphine group) 30 minutes before surgery. Postoperative analgesia and sedation were assessed using a verbal rating score (0=no pain, 1=mild pain, 2=moderate pain, 3=severe pain) and Ramsay's sedation score, respectively. At the patient's request five ml boluses of 0.125% bupivacaine together with ketamine (2mg/ml) or morphine (0.1mg/ml) were given until a pain score of two at rest was established. The incidence of postoperative nausea and vomiting (PONV) requiring treatment was recorded.

RESULTS: We approached and randomized 20 patients with 10 patients in each group. Mean age was 69 ± 5 years in the morphine group and 69 ± 3 years in the ketamine group. Pain scores immediately (0h) and (6h) after surgery were significantly higher in the ketamine group than in morphine group (0h: 2.5 ± 2.0 versus 0.0, $p=0.002$; 6h: 1.8 ± 1.3 versus 0.0, $p=0.001$). None of the patients receiving epidural morphine requested a top up within the first 24 postoperative hours. Eight patients in the ketamine group required additional boluses. The total amount of epidural ketamine administered was 70 ± 19 mg. Thirty minutes after the operation sedation score was higher in the morphine than in the ketamine group (4.1 ± 1.2 versus 2.7 ± 0.5 , $p=0.03$). In the morphine group three patients had PONV while in the ketamine group PONV was not observed.

CONCLUSION: The results of this pilot study show that epidural ketamine, when compared to epidural morphine, is associated with less sedation and a smaller risk of PONV, but necessitates more frequent or continuous administration to achieve comparable analgesia.