Does Perioperative multimodal analgesia improve outcomes in spine surgery?

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Outline

1. Why we should care
   a. Specialty is changing
   b. Anesthesiology needs to impact short and long term outcomes
   c. Profession needs to bring value

2. Overview of Pain medication classes
   a. Neuropathics
   b. NSAID
   c. Acetaminophen
   d. NMDA antagonists
   e. Opiates
   f. Local Anesthetics

3. Overview of Relevant Studies
   a. Neuropathics
      i. Gabapentin
         1. Improves outcomes
   2. Does Not improve outcomes
   3. Best Dose

ii. Pregabalin
   1. Improves Outcomes

   2. Best Dose

b. NMDA Antagonists
   i. Ketamine
      1. Improves Outcomes
      2. Does Not Improve Outcomes

   ii. Magnesium
      1. Data Lacking

   c. NSAID
      i. Improves Outcomes
      ii. Does NOT impair bone healing


iii. Impairs Bone Healing


d. Local Anesthetics

i. Peripheral


ii. Epidural


iii. Wound Infiltration


e. Opiates

i. Fentanyl vs Sufentanil vs Remifentanil infusions

1. Context Sensitive Half life comparisons

ii. Methadone


iii. Intrathecal Morphine

f. Steroids
   i. Steroid Wound Infiltration
      1. Peridural Methylprednisolone and Wound Infiltration With Bupivacaine for Postoperative Pain Control After Posterior Lumbar Spine Surgery: A Randomized Double-Blinded Placebo-Controlled Trial
   ii. Epidural Steroid Administration

g. Prehabilitation

h. Multimodal

4. Summary of Recommendations

5. Why Anesthesiology must evolve to measure and impact longer term outcomes

6. References