Paper #53

Effectiveness of Novel Adjuncts in Multimodal Pain Management Following Total Knee Arthroplasty

Notes

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Introduction: Postop pain following TKA impairs recovery. Multimodal pain management is used to alleviate pain and reduce narcotic requirements. Newer costly adjuncts including intravenous (IV) acetaminophen and liposomal bupivacaine (LB) have been introduced. We hypothesize that the addition of these to our standard multimodal regimen that includes oral acetaminophen and Ranawat's periarticular cocktail (SG) could further improve pain relief after TKA and reduce narcotic requirements.

Methods: A prospective randomized clinical trial was conducted with: standard group (SG), perioperative oral acetaminophen with intraoperative periarticular (LB) and perioperative IV acetaminophen with Ranawat's cocktail (IVA). All patients received same anesthesia and postoperative pain regimen and VTE prophylaxis. Variables analyzed included the Visual Analogue Score (VAS), Total Morphine Equivalents (TME), and the Opioid Related Symptoms Distress Scale (OR-SDS) at 24 and 48hrs. A total of 156 patients were enrolled, 52 per group.

Results: All groups were similar demographically (p>0.05) and no complications occurred in any group. At 24 hours, no difference was seen between VAS and ORSDS (p>0.05) for all groups; however, a significant difference was seen between LB and SG for TME (p=0.04) with LB requiring more narcotics. No significant differences were seen for all outcome measures at 48 hours postoperatively.

Conclusion: The addition of IV acetaminophen or liposomal bupivacaine to our standard multimodal pain management regimen did not provide any advantage for pain relief following TKA. In fact, the LB group required more TME at 24 hrs. Based on our result, we do not recommend the routine use of IV acetaminophen and LB following TKA.