

## Comparative Study of Intra-articular Dexmedetomidine Versus Ketamine as an Adjuvant Analgesic after Arthroscopy

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### Abstract

**Background:** The primary aim of this study was to evaluate the analgesic effect and safety of intra-articular Dexmedetomidine versus Ketamine in patients undergoing knee arthroscopic surgeries.

**Material and Methods:** A total of 100 patients were allocated into two equal groups (n= 50 in each group) using random numbers, in an allocation ratio of 1:1. Syringes were labelled either D (dexmedetomidine) or K (ketamine) and study drugs were injected via intra-articular route after completion of knee arthroscopy. Analgesic effect of study drugs was compared using VAS score at 6 hrs, 12 hrs and 24 hrs. Safety of study drugs was compared using mean HR, mean BP and adverse events observed. **Results:** Lower VAS score, increased time for first rescue analgesic requirement and decreased need for postoperative analgesics were observed in the dexmedetomidine group as compared to ketamine group. Mean HR and Mean BP were lower in patients receiving dexmedetomidine compared to those receiving ketamine. Hypotension was detected in 2 patients receiving dexmedetomidine while 1 patient on ketamine developed delirium. **Conclusion:** Intra-articular use of dexmedetomidine is superior to ketamine for post-operative analgesia without significant adverse effects.

**Key words:** Knee arthroscopy, Intra-articular Dexmedetomidine, Intra-articular Ketamine