

Intra-articular narcotics in pain relieving after arthroscopic meniscectomy of knee: A comparative study

H.R. Arti, MD¹ S. Abrishamkar, MD² M. Rafieian, PhD³

Assistant professor, Departments of Orthopedic¹, Neurosurgery², Associate Professor, Department of Pharmacology³, Shahre Kord University of Medical Sciences

ABSTRACT

Introduction: Knee arthroscopy causes painful signals and if untreated, it will cause intensive and prolonged pain that may prevent rehabilitation of the patients for 2 weeks. The analgesic activities of some analgesics, following intra-articular injection, have been studied before. This study was designed to compare the analgesic effects of three narcotic analgesics in comparison with the control group.

Methods: In a double blind randomized clinical trial, 110 patients were designated into four groups. All of them received an intraarticular injection containing 95 ml bupivacaine with: 1:200000 epinephrine at the end of arthroscopic procedure in a 10 ml syringe. The remainder of syringe was filled with one of the following solutions:

Methadone (5mg) for 28 patients, Morphine (5mg) for 23 patients, Normal saline (5cc) for 28 patients, and Meperidine (50mg) for 27 patients. The patients then received analgesic based on their needs. The equivalents of analgesics to morphine were calculated. Other variables including patients need to analgesics during hospitalization, number of visits from discharge to 7 days later, and pain scores were also recorded. Data were analyzed by SPSS-12 statistical software and using Chi-Square and analysis of variance tests.

Results: In morphine group the analgesic usage was significantly low in hospitalized ($P < 0.05$) and outpatients ($P < 0.05$) compared with the other groups. There was no complication during the study.

Conclusion: Morphine in comparison with meperidine or methadone is more beneficial in reducing pain when added to bupivacaine following arthroscopic meniscectomy.

Correspondence:
M. Rafieian, PhD
Medical School, Department
of Pharmacology, Shahre
kord University of Medical
Sciences.
Shahre Kord, Iran
Tel: +98 381 33300521
Email:
rafieian@yahoo.com

Key words: Arthroscopy – Narcotics - Methadone