

Comparison of effects of pethidine (intramuscle) and diclofenac (suppository) for relief of pain after laminectomy

Emamhadi MR (MD)
Department of Neurosurgery
Guilan University of Medical Sciences

Ahmadi Dafchahi M (MD)
General physician and Researcher of Guilan
Trauma Research Center (GTRC)
Guilan University of Medical Sciences

Corresponding Author:
Ahmadi Dafchahi M (MD)

E-mail:
ahmadi@gtrc.ir

Abstract

Background&Objective: Pain, in particular post-operative pains, can produce numerous complications including a delay in healing of wounds in patients. For pain relief in patients postoperatively, different drugs are used, opioids like pethidine and NSAIDs. This study was carried out to compare the effects of the IM pethidine and suppository Diclofenac for pain relief after laminectomy following lumbar disc hernia.

Materials&Methods: this is a randomized control clinical trial study, 100 patients presenting for laminectomy with diagnosis of lumbar disc hernia and eligible for participation in the study, after receiving their informed consent for inclusion in the study non probability convenience sampling were selected by a convenience sampling method and then divided into two groups of Pethidine (P) and Diclofenac (D). Patients' pain scores were measured by Visual Analogue Scale (VAS). Finally, the data obtained were analyzed by statistical software of SPSS.10, F test, T test and χ^2 $P < 0.05$ was considered significant.

Results: Mean pain scores within 24 hours after operation were calculated in group P as 2.8 ± 2.02 and in group D as 4.46 ± 2.30 . There was a statistically significant difference between the reduction of the pain score after surgery in both groups ($p < 0.05$). Nausea was the greatest side effect observed in group P (23%) and epigastric pain was the most common pain found in group D (18%). However, no statistically significant difference was found between the two groups in terms of the drug adverse effects.

Conclusion: A statistically significant difference was observed between pethidine ampule and Diclofenac suppository regarding the pain reduction after laminectomy. In the other words, Diclofenac suppository has less impact on pain killing in comparison with Pethidine ampule. In other to confirm these results, it is suggested that another study in terms of age and sex and after orthopedical procedures in a large scale-and if possible double blind- to be carried out.

Key Words: Diclofenac, Meperidine, Laminectomy, Pain- Postoperative