THE EFFECT OF LOCAL STEROID APPLICATION COMBINED WITH PREEMPTIVE SURGICAL SITE INFILTRATION IN REDUCING IMMEDIATE POSTOPERATIVE PAIN AND OPIOID CONSUMPTION FOLLOWING LUMBAR MICRODISCETOMY. A PROSPECTIVE RANDOMISED CONTROLED TRIAL

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**Aim of the study:**

To investigate whether preemptive surgical site infiltration with local anaestheticum combined with before closure local corticosteroid application would be more effective compared to infiltration alone in reducing immediate postoperative back pain and opioid consumption, following lumbar microdiscectomy.
Patients and Methods (1):

- **Prospective randomized controlled trial**
- 60 pts undergoing 1 or 2 level discectomy (no revision procedures)
- **Randomization groups:**
  - **Group A** (30 pts): infiltration + steroid
  - **Group B** (30 pts): infiltration only
**Patients and Methods (2):**

**ALL patients (Group A and Group B):**
preemptive infiltration of the surgical site with 10ml of a 2% lidocaine and 1/10.000 adrenaline solution

**Group A only:**
intraforaminal and retrograde epidural application (use of a small catheter) of 9ml 2% ropivacain and 1ml 3mg/ml betamethasone acetate just before wound closure
Patients and Methods (3):

• **ALL patients:** standard postoperative analgesic regime: 1 gr paracetamol x3 i.v.
  -100 mg Tramadol i.v.: at 3 h postop to patients requiring further analgesia

• **Postoperative back pain evaluation:**
  - VAS score at 1, 2, 3, 4, 6, 8, 12 and 24 h postop
  - Recording of patients’ opioid consumption

• **Statistical analysis:**
  t-Test for discrete variables
  Fisher’s exact test for categorical variables
Results (1):

- No procedure related complications

- Patients requiring further analgesia:
  3h post op: Group A: 0, Group B: 7 (P=0.01)

- Mean VAS score:
  2h post op: Group A: 1.6 vs Group B: 2.3 (P<0.05)
  3h post op: Group A: 1.8 vs Group B: 2.7 (P<0.05)
Results (2):

- **After Tramadol** application:
  mean VAS score decreased in Group B up 4h post op, while it remained low in Group A

*NO significant difference among the two groups for the remaining time points tested (4h-24h post op)*
VAS-score post op

* P<0.05
**Conclusions:**

Our results indicate that local corticosteroid application combined with preemptive surgical site infiltration with local anaesthetica is more effective than infiltration alone in reducing immediate postoperative back pain and opioid consumption, following lumbar microdiscectomy. Both are also safe and easy to perform procedures with no related complications.
Literature:


Disclosure declaration

none of the authors has any potential conflict of interest