Effects of Clonidine on Uterine Contractility
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Introduction: Clonidine as an $\alpha_2$-agonist may be useful adjuvant. Clonidine may be especially valuable in providing pain relief for women in the first stage of labour.

Methods: Ten albino rats, 18-21 days pregnant were used for the study, that was approved by the Animal Care and Use Committee of the Akdeniz University. We obtained full-thickness myometrial muscle strips from each animal. Oxytocine (1mU/L) was added to organ bath to stimulate labor. When the contractions became regular, strips were exposed increased concentrations of clonidine (Catepresan, Boehringer Ingelheim). Clonidine was used at cumulative doses of $10^{-8}, 10^{-7}, 10^{-6}, 10^{-5}$ and $10^{-4}$ M in the study. The myometrial isometric contractions were continuously measured with a force transducer (FDT 10-A, Commat Ltd), connected to a computer based data acquisition system (TDA 97, Commat Ltd). The characteristics of the contractions analyzed over 1000 second intervals, immediately before and after the addition of drugs, included frequency, amplitude of each contractions measured. Data were presented as mean±standard deviation and were analyzed by paired sample t test.

Results: In most myometrial strips, the tone was unaffected by the lowest concentration of clonidine. To exposure to clonidine at cumulative concentrations of $10^{-8} – 10^{-4}$ M increased contractile activity approximately 13% in myometrial strips isolated from pregnant rat. A $101\pm2.04\%$ at a $10^{-9}$ M concentration and $104.7\pm12.4\%$ at $10^{-4}$ M concentration, contractile activity were obtained. These differences were not statistically significant ($p>0.05$).

Conclusion: Clonidine had a minimal effect on myometrial contractions. The choice of clonidine for obstetric pain relief can be alternative.

References:

Key words: Clonidine, myometrium, contractility.
Intraperitoneal Tramadol and Tenoxicam
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**Background and aims:** Pain, after the laparoscopic surgery still remains to be one of the serious problem postoperatively. The intraperitoneal analgesia may be an alternative to traditional methods of analgesia(1).

**Methods:** This study was approved by the Animal Ethical Committee of Akdeniz University and performed with standard guidelines for care and use of laboratory animals. In the current study 20 adult female albino rats weighing 230-250 were used and divided into two groups. Tramadol 2mg.kg^{-1} and Tenoxicam 20 mg were administered intraperitoneally in Group I(n:10) and II(n:10). Two hours later, all animals were sacrificed and their periton were excised. Microscopically in each group, inflammation, swelling of mesothelial cells, dulling of the peritoneal surface, exudative fibrin film, focal and diffuse desquamation were observed and evaluated by Histopathological Scoring Criteria(2). The data were analyzed with Chi-square and Fisher’s chi-square tests.

**Results:** Thin exudative fibrin film and focal desquamation of mesothelial cells were observed in seven cases(70%) of the tramadol group. This finding demonstrated a moderate histopathological changes. The swelling of mesothelial cells in 3 cases and dulling of the peritoneal surface in 2 cases were seen in tenoxicam group. These histopathological findings were statistically significant compared between study groups (p<0.05, p<0.001).

**Conclusion:** Patients undergoing laparoscopic surgery are prone to expect painless postoperative period because of the toughts and common belief about this type of surgery. Thus, pain after laparoscopic surgery still remains to be one of the serious problem postoperatively. Almost 80% of the patients need to have opioid analgesic in postoperative period. The pain after laparoscopic procedures depend on many various factors. Phrenic nerve sensitivity due to the distention, residual intra abdominal CO_2 insufflation gas, the amount of abdominal incision, anesthetic drugs and personal factors are the main determinants of postoperative pain.

The rationale of intraperitoneal administration of drugs for treatment of the pain after laparoscopic surgery is the fact of having small incisions at the abdominal wall leading the visceral component of the pain more prominent. To this pursuit many authors tried to diminish the pain via peritoneal route. Intraperitoneal technique is deemed to be safe, improves patients comfort, shortens the length of stay in the postoperative care unit and decreases nursing care in the ward.

The use of intraperitoneal tramadol has not been investigated. For this reason, the histopathological effects of tramadol should be further investigated.

**References:**

**Key words:** Intraperitoneal, tramadol, tenoxicam.