

FP44. — EFFECT OF PARECOXIB, A SELECTIVE COX-2 INHIBITOR, IN THE PREVENTION OF POST-OPERATIVE ADHESIONS IN A RAT MODEL.

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Postoperative peritoneal adhesions are frequent after abdominal surgery. Many preventive agents have been tried in animal models and in clinical trials, but up to now ; there has been no definitive strategy to prevent their formation. In this study, the effectiveness of parecoxib (Dynastat®), a selective cyclooxygenase-2 inhibitor, in preventing experimental intra-abdominal adhesions in rats was studied.

Thirty male rats having undergone a primary surgical procedure aiming at inducing peritoneal injury to produce intra-abdominal adhesion, were randomized in three groups : (A) control group, no therapy ; (B) intraperitoneal (IP) parecoxib group ; (C) intramuscular (IM) parecoxib group. Ten days later, a xyphopubic midline incision was performed and the whole abdominal cavity was explored to score the peritoneal adhesions.

Twenty-three rats developed adhesions, 9 (100%) in group A, 7 (70%) in group B and 4 (40%) in group C (P = 0.01). The extent and severity scores of adhesion were significantly lower in groups B and C than those in control group (p < 0.001). Type of adhesions was measured at 2.25 ± 0.67 in group A, 1.20 ± 0.86 in group B and 0.82 ± 0.80 in group C. This was significantly different between group A and B (p < 0.001), between A and C (p < 0.001). But no significant difference was found between group B and C (p = 0.17).

In this study, we found a significant effect on parecoxib in the prevention of postoperative adhesions. But, without avoiding completely the formation of adhesion, parecoxib reduces significantly extent and severity of postoperative adhesions in rats treated with IP or IM parecoxib administration.