

**Roslan M., Maciorowska K., Roslan J., Kościuczuk U., Komorowska- Wojtunik E., Hady R. H.**

**THE EFFECT OF LOW-OPIOID ANALGESIA ON THE POSTOPERATIVE PAIN**

**Scientific tutors PhD Kościuczuk U.**

*Department of Anaesthesiology and Intensive Care Medical University of Bialystok, Department of Anaesthesiology and Intensive Care, Clinical Department of General and Endocrine Surgery*

*Medical University of Bialystok*

*MSWiA Hospital, Bialystok*

**Introduction.** Postoperative pain therapy is one of the aspects in perioperative care.

**Aim:** was to determine the influence of the low opioid anesthesia protocol on the incidence and intensity of postoperative pain after laparoscopic cholecystectomy.

**Materials and methods.** The study group consisted of 39 patients anesthetized according to the low-opioid protocol (using the coanalgesics: ketamine, lidocaine and magnesium sulphate), and the control group consisted of 37 patients (general anesthesia with fentanyl as the main analgesic). The incidence and intensity of postoperative pain was assessed using a 10-point numeric scale (NRS) questionnaire within 24 hours after surgery - at the time points: first 2 hours, between 2 and 6 hours, 6 and 12 hours, 12 and 24 hours after surgery.

**Results and discussion.** The incidence of postoperative pain was 90%, 82% in the study group and 100% in the control group. In the study group, the highest median pain in the NRS was 3 and occurred within the first 2 hours, while the lowest median pain in the NRS was 1 and occurred between 12 and 24 hours after surgery. In the control group - the highest median pain was NRS 4 and occurred in the first 2 hours, between 2 and 6, 6 and 12 hours, where the lowest median pain was 3 and occurred between 12 and 24 hours after surgery. There were significant differences in pain intensity between 2 and 6 hours ( $p = 0.001$ ), 6 and 12 hours ( $p = 0.001$ ) and 12 and 24 hours after surgery ( $p = 0.0001$ ). There was no evidence of an effect of the total dose of fentanyl on the intensity of postoperative pain in the control group.

**Conclusions.** The use of the proposed low opioid anesthesia protocol was safe and reduced the intensity of postoperative pain within 24 hours after laparoscopic cholecystectomy.