

SI14: A COMPARISON OF ENDOLOOP LIGATURES AND NONABSORBABLE POLYMERIC CLIPS FOR THE CLOSURE OF THE APPENDICULAR STUMP DURING LAPAROSCOPIC APPENDECTOMY IN CHILDREN

Zenon Pogorelić^{*1}, Boris Kostovski², Ana Jerončić², Tomislav Šušnjar¹, Ivana Mrklić¹, Miro Jukić¹ and Ivo Jurić¹

E-mail: Zenon Pogorelić* — zpogorelic@gmail.com

¹University hospital of Split, Spinčićeva 1, Croatia ²University of Split, School of Medicine, Soltanska 2, Split, Croatia

Background The aim of this prospective trial was to evaluate the clinical outcomes of nonabsorbable polymeric clips in laparoscopic appendix stump closure in children by comparing the endoloop ligature.

Materials and methods From June 2011 to June 2016, 277 children who underwent laparoscopic appendectomy were included in the study. The patients were divided into two groups based on the technique used for appendiceal stump closure: there were 101 patients in the polymeric clips group and 176 in the endoloop group. The risk of intraoperative and postoperative complications was investigated for two different techniques to close the appendiceal stump.

Results Among the 277 patients who underwent laparoscopic appendectomy, no intraoperative complications and 17 (6.1%) postoperative complications were recorded. There were no significant differences between the groups with respect to the postoperative complications ($P=0.546$). The median length of the operation was 10 minutes shorter when the polymeric clips were used ($P<0.001$). The median hospital stay was also shorter in the polymeric clips group ($P=0.008$). Costs of polymeric clip were significantly lower (€ 17.64) compared to endoloop (€ 34.16).

Conclusions Closure of the appendix stump with polymeric nonabsorbable clips in laparoscopic appendectomy reduces operative time and may be a cost-effective and simpler alternative to widely used endoloops.

Key words appendicular stump; children, endoloop, laparoscopic appendectomy, polymeric clips