

## **Evaluation of closure of Appendicular Stump (AS) in laparoscopic appendectomy using LT400® clips.**

### **ABSTRACT**

**Introduction:** Closure of the appendicular stump in laparoscopic appendectomy is a crucial step regarding its importance in preventing postoperative infectious complications. The best method is still debatable. In this study, we used a titanium LT400® clip; the aim was to investigate the safety and feasibility of the clip as an alternative for stump closure.

**Methods:** A prospective randomized study for all patients presented with acute appendicitis and had laparoscopic appendectomy using LT400® clips for stump closure. Hospital records over two years for Intra and postoperative complications, operation time, duration of hospital stay, re-hospitalization, re-operation, and incidence of using different methods to close the stump of the appendix other than the LT400® clips among patients.

**Results:** This study included 102 patients who presented with acute appendicitis including 29 cases complicated by abscess, mass, and gangrene. All subjects were operated on by laparoscopic appendectomy, with one case converted to open surgery. The median length of operative time & hospital stays was 29.11 minutes & 1 day, respectively. The clips used ranged from 3 to 8 LT400® clips in each case. In addition, we used Hem-O-Lok® clips for the closure of the appendix stump

in 10 patients (9.8%). Postoperative complications occurred in 7 cases all were superficial wound infection, no intestinal leakage, or need for readmission to hospital.

**Conclusions:** LT400® clips are a safe, feasible, easy to apply, cheap alternative for stump closure in laparoscopic appendectomy.

**Keywords:** Appendicitis, Laparoscopic Appendectomy, Appendix stump closure, LT400® clips.