



POLYMER CLIPS VS ENDOLOOP

APPENDICULAR STUMP LIGATION DURING LAPAROSCOPIC APPENDECTOMY: A RANDOMIZED CONTROLLED TRIAL

Samiullah Bhatti, Dr. Usman butt, Muhammad Umar Shabbar Changazi, Ali Shah, Muhammad Waris Farooka, Mahmood Ayyaz ,

Services Institute of Medical Sciences, Lahore ,Pakistan



SAGES 2020

Introduction

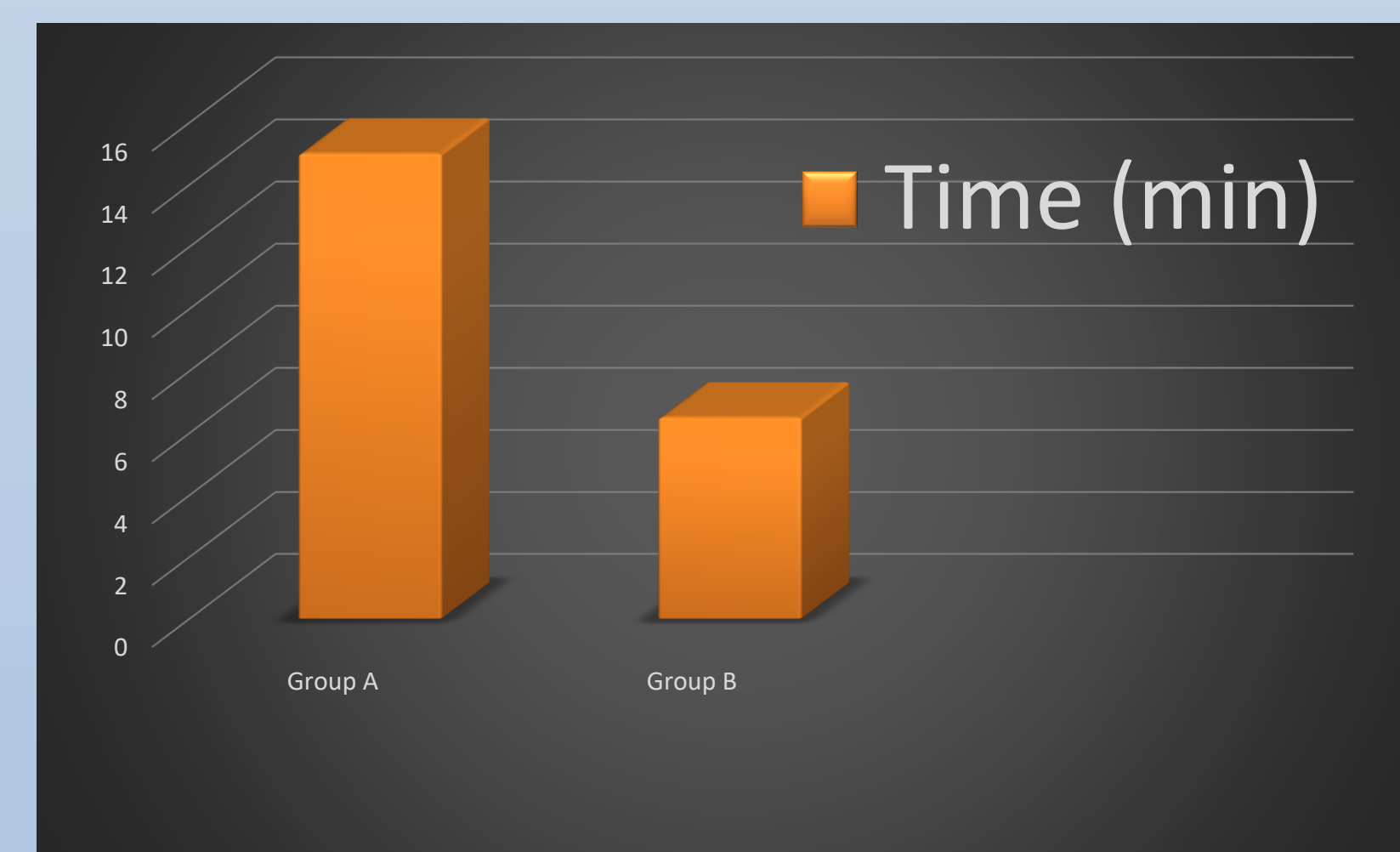
- Appendectomy is the most common surgical operation performed worldwide.
- Laparoscopic approach being the choice for most surgeons today.
- Appendicular stump and mesentery ligation is the key step in the whole procedure.
- Conventional method to ligate both of them is loop of Vicryl.
- Polymer clips also known as hem-o-clips are gaining popularity as a new modality
- We the doctors of Services Hospital decided to study the role of polymer clips for ligation of appendicular stump and mesentery.

MATERIALS AND METHODS

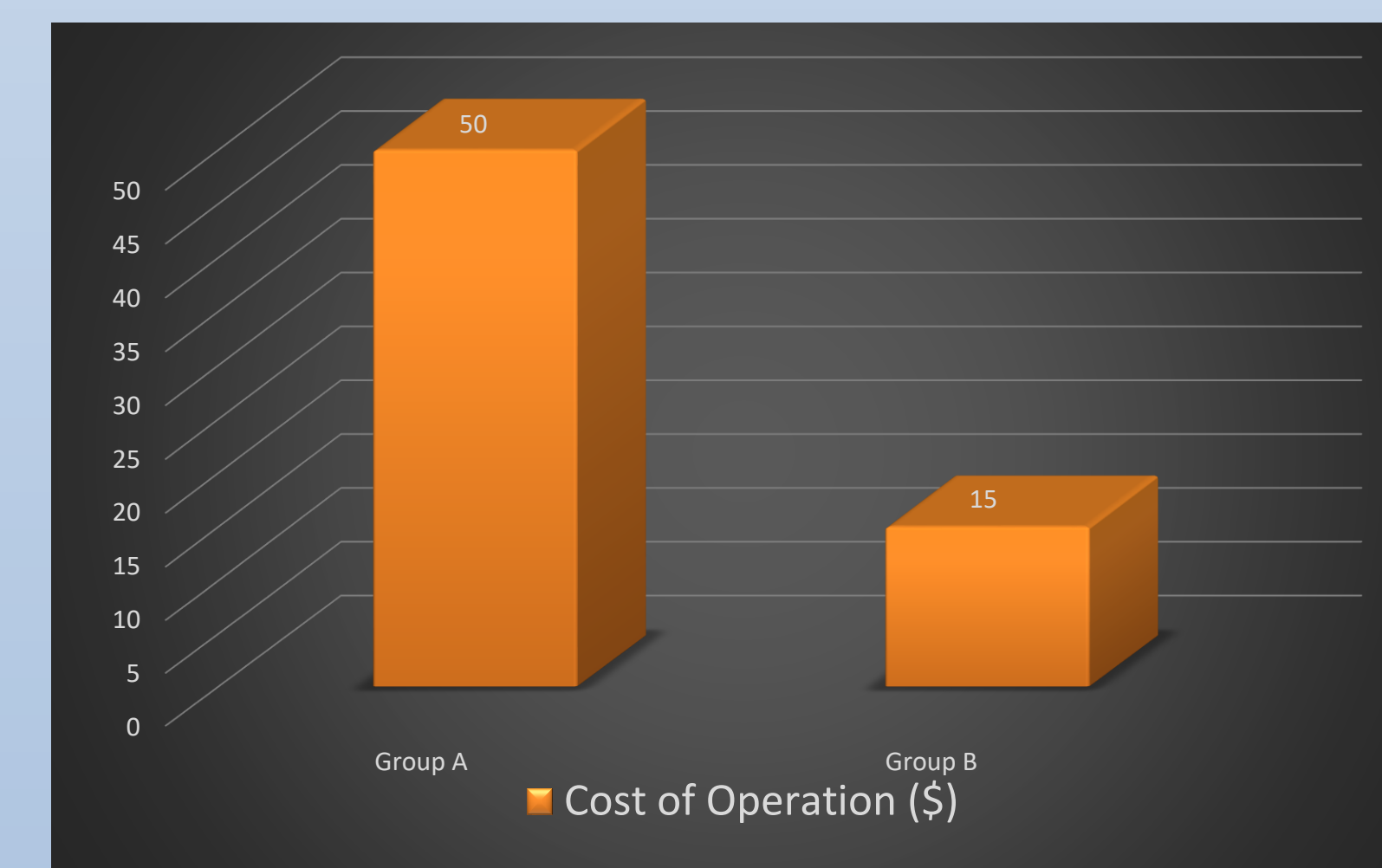
- 100 patients were recruited from emergency department
- Randomized to either Group A (vicryl loop closure) or group B (polymer clips closure).
- From June 2017 till June 2019.
- Primary outcome measure : COST and TIME of procedure
- Secondary outcome measure : operative complication of stump leakage infection and bleeding.
- Data was entered and analyzed in SPSS version 23.0.

RESULTS

- There were 50 patients in each group.
- 54 (54%) of them were male and 44 (44%) were female.
- Mean age of the patients was 23 Years (range 17-38 years).
- Mean time required for appendicular stump and mesentery ligation with vicryl loop (Group A) was **15 minutes**.
- Mean time required for appendicular stump and mesentery. ligation with Polymer clip was **6.5 minutes.(p value <0.001)**.
- Mean cost of operation was **15\$** for polymer clips while for vicryl loop was **50\$ (p value- <0.001)**.
- No difference was found in terms of complications in the two groups. ($p= 0.598$)



Time of operation (min)



Cost of clip/loop

CONCLUSION

- Polymer clips/hem-o-lock clips are safer and cost effective alternative to vicryl loops for ligation of appendicular stump and mesentery.**

REFERENCES

- Schwartz's Principles of Surgery, 10th ed, Brunicaudi FC (Ed), McGraw Hill, 2013.
- Pickhardt PJ, Lawrence EM, Pooler BD, Bruce RJ. Diagnostic performance of multidetector computed tomography for suspected acute appendicitis. *Ann Intern Med.* 2011 Jun 21. 154(12):789-96.
- [Delibegović S](#), [Matović E](#). Hem-o-lok plastic clips in securing of the base of the appendix during laparoscopic appendectomy. *Surg Endosc.* 2009 Dec;23(12):2851-4.
- Korndorffer JR Jr, Fellingner E, Reed W. SAGES guideline for laparoscopic appendectomy. *Surg Endosc.* 2010 Apr. 24(4):757-61.
- [Hanssen A](#)¹, [Plotnikov S](#), [Dubois R](#) Laparoscopic appendectomy using a polymeric clip to close the appendicular stump *JSLs.* 2007 Jan-Mar;11(1):59-62.
- [Partecke L](#)¹, [Kessler W](#), [von Bernstorff W](#), [Diedrich S](#), [Heidecke CD](#), [Patrzyk M](#). Laparoscopic appendectomy using a single polymeric clip to close the appendicular stump. *Langenbecks Arch Surg.* 2010 Nov;395(8):1077-82.

