International Journal of Science and Research (IJSR)
ISSN: 2319-7064
SJIF (2022): 7.942

Laparoscopic Submucosal Appendectomy have Upper Edge for Gangrenous Appendix and Distorted Landmark: A Must Do Approach for Skilled Surgeon

Dr. Abhay Kumar[1], Dr. Sunny Singh[2], Dr. Mrityunjai Kumar[3]

[1]Junior Resident, Department of surgery, JLNMCH Bhagalpur

[2]Junior Resident, Department of surgery, JLNMCH Bhagalpur

[3]Associate Professor, Department of surgery, JLNMCH Bhagalpur

Abstract: ***Laparoscopic submucosal appendectomy has upper edge for gangrenous and distorted adherent to adjacent structure. Introduction: Delayed presentation and recurrent appendicitis sometimes test the skill of surgeon and become herculean task, distorted anatomy and adherent to adjacent structure. Material & Method: FromDec.2020 to Jan 2022, case series of 34 cases in which we did submucosal appendectomy in 9 cases out of which 7 were male, ageranges from 9 to 21 years, at JLNMCH Bhagalpur Bihar. Results: 11 cases presented with perforation, 13 cases have recurrent appendicitis and 10 cases were referred from primary centre; post operated stay 3 to 5 day, follow up to 3 to 6 months. CONCLUSION: Laparoscopic submucosal appendectomy is must do technique for skillful surgeon toevade conversion and saferoption in case of obscure anatomy and dense adhesion.***

Keywords: laparoscopic submucosal appendectomy, distorted anatomy, skilled surgeon.

1. Introduction

Complicated appendicitis can be defined as acute appendicitis in which there is gangrenous or perforation appendix, or intra - abdominal abscess. Appendicitis complicated by mass formation is included in this category, as posing difficulty during operation. This type of cases test the skill of surgeon because of distorted anatomy and dense adhesions leading to troublesome bleeding and injury to adjacent intestine is imminent. Submucosal appendectomy could be an answer in these situations as we found in our study.

2. Material & Methods

December 2020 to January 2022, laparoscopic appendectomies were performed, 34 cases that presented to us were recurrent appendicitis, perforation and formed mass. Among them 9 cases we have done the submucosal dissection technique. Laparoscopic appendectomy was done with patient under general anaesthesia in all cases. We have used three port technique:

1) umbilical port as right hand working port
2) supraumbilical as camera port,
3) right iliac fossa as left handed working port.

During laparoscopic appendectomy we came across:

1) An inflamed and engorged appendix rotated upon itself running behind the ileum & tip can - not brought into view
2) A perforated gangrenous appendix forming mass.

An incision made on anti - mesentric wall of appendix with hook, mucosal sleeve pulled out leaving the muscular wall. The base of tube was then ligated flush with cecum and divided distally; thereafter peritoneal cavity was cleaned with normal saline by irrigation &aspiration. Drain tube kept in peritoneal cavity in all the cases. Ports were closed

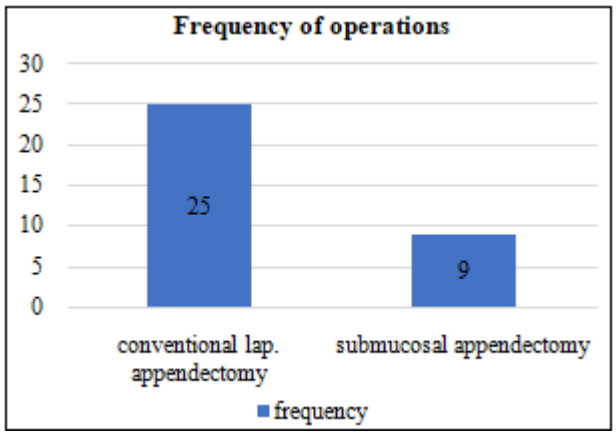
3. Results

Out of 34 cases, we have done submucosal appendectomy in 9 cases.

7 were male.

Age ranges from 9 to 21 years.

Submucosal dissection done in 9 cases as we achieved plane of dissection in gangrenous appendix.



According to position:
1) Retrocecal (n=5).
2) Subcecal: (n=4).

Mean operative time: 35 to 55 minutes.

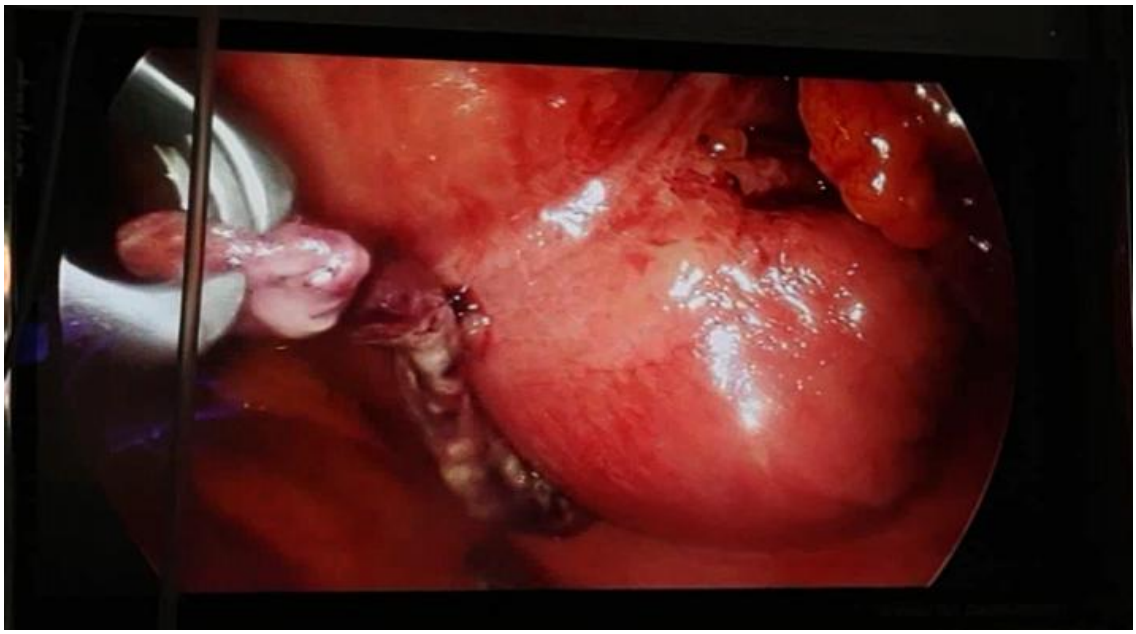
In 8 cases feeding was tolerated and 1 case suffered from ileus.

Post operated hospital stay 3 to 5 days.

We follow up upto 6 months.

4. Discussion

Laparoscopic offers alternative to open technique for complicated appendix too, as post operative outcomes are better and fewer complications. Our approach in gangrenous appendix, an incision was made near the base using hook, taking care not to perforate the mucosa unless it was perforated already. Once the muscle layers were separated mucosal tube came into view. During peeling off the mucosal tube as we encountered with serosa left intact, minor haemorrhage managed by harmonic. Stump appendicitis is another problem that arise in complicated and recurrent cases is eliminated by this technique. This technique is very easy to performed once the mucosal tube was identified. We left the entire muscle coat while identifying mucosal tube. In some cases little hemorrhage from the inner surface of muscular cuff, washed with saline before closure. Keeping the drain for 24 hours. Neither of patient in our study had postoperative wound infection. Postoperative hospital stay for laparoscopic in complicated cases is shorter than with open method.



Intraoperative submucosal appendix

5. Conclusion

Laparoscopicsubmucosal appendectomy is must do technique for a skilled surgeon to evade conversion and safer option in case of obscure and distorted anatomical landmark &delayed presentation.

References

[1] Martin LC, Puente IP, Sleeman D. Open versus laparoscopic appendectomy: A prospective randomized comparison. Ann surg 1995; 222: 256 - 262.
[2] Ortega AE, HunterJG, Schirmer B. A prospective, randomized comparison of laparoscopic appendectomy with open appendectomy. Am j Surg 1995; 169: 208 - 213.
[3] Frazee CF, BohannonWT. Laparoscopic appendectomy for complicated appendicitis. Arch Surg 1996; 131: 509 - 512.
[4] Schick KS, HurtTP, FertmannJM, etal. A critical analysis of laparoscopic appendectomy: How experience with cases allowed innovative treatment to become standard in a university hospital. World J Surg 2008; 32: 1406 - 1413.