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Efficacy of tube Cecostomy in preventing post appendectomy fistula

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ABSTRACT

Objective: This study was conducted to determine role of tube cecostomy in preventing fecal fistula formation after appendectomy in the patients with appendicular mass or abscess.

Study design and Duration: It is a descriptive case series study. Study was started in July 2017 and it was completed in December 2017 comprising on 6 months duration.

Setting: This study was conducted in surgical unit of Bahawal Victoria Hospital Bahawalpur, Pakistan.

Patients and Methods: In this study 34 cases were included having appendicular mass or appendicular abscess. These cases were admitted in the ward via emergency department. Initially detailed history was taken and thorough examination was done. All necessary investigations were carried out to confirm the diagnosis. An inclusion criterion was formed on which basis only those cases were included in this study which presented with appendicular abscess or phlegmon formation. After investigations, which cases had other diagnosis, they were excluded from the study. All data of the patients in study group was documented properly. After taking anesthesia fitness these cases were operated and tube cecostomy was performed after appendectomy. These cases were retained in the ward for 4-6 days. Monitoring was done. Findings per operating were noted down. Complications during operation or after it were observed. Which cases developed any complication they were retained for more time and other cases were discharged on good antibiotics and they were called on follow-up after 10 days. Proper consent was taken from the patients for including their data in the study. Consent was also taken from the in charge of ward for conducting this study. Data was analyzed on Microsoft office and SPSS version 2017 and results were calculated in the form of frequencies and expressed in tables and graphs.

Results: Total 34 cases were studied. Ages of these cases was ranging from 15-50 years with mean age of 27.5 years. Minimum age of the patient was 15 years and maximum age reported was 46 years. Most of the cases were between 20-30 years age. During operation findings were gangrenous appendix in 14 cases, perforated appendix with abscess formation in 12 cases and in 8 cases there was perforated appendix without abscess formation which presented relatively earlier. Complications after tube cecostomy included leakage from pericatheter in 3 cases, early dislodgement of catheter occurred in one case and retained catheter in 2 cases. After removal of catheter fistula formation was not seen in any patient that indicated this method prevents fecal fistula formation and it is much safe method with less morbidity and early recovery. Post operative complications were seen in 6 cases and in rest of 28 cases no complications occurred. There were both male and female patients In this study accounting 22 males and 12 females.

Conclusion: After appendectomy for appendicular abscess or appendicular mass fecal fistula formation is much common, this can be prevented by tube cecostomy. It is a very effective procedure and simple to perform with good outcome

Key Words: Appendicular mass, Appendicular abscess, tube cecostomy

INTRODUCTION

Appendicitis is a very common surgical condition most common in young and adult age. If it is not treated in time it can lead to perforation or phlegmon formation which mimics like mass in abdomen. Perforation mostly leads to abscess formation in right iliac fossae or pelvic abscess depending upon the position of appendix. After perforation of appendix patient present with the signs symptoms of peritonitis like abdominal distension, tenderness, fever, tachycardia, abdominal pain and raised TLC. In this study 34 cases were included having appendicular mass or appendicular abscess. These cases were admitted in the ward via emergency department. Initially detailed history was taken and thorough examination was done. All necessary investigations

were carried out to confirm the diagnosis. An inclusion criterion was formed on which basis only those cases were included in this study which presented with appendicular abscess or phlegmon formation. After investigations, which cases had other diagnosis, they were excluded from the study. All data of the patients in study group was documented properly. After taking anesthesia fitness these cases were operated and tube cecostomy was performed after appendectomy. These cases were retained in the ward for 4-6 days. Monitoring was done. Findings per operating were noted down. Complications during operation or after it were observed. Which cases developed any complication they were retained for more time and other cases were discharged on good antibiotics and they were called on follow-up after 10 days.



Proper consent was taken from the patients for including their data in the study. Perforated appendix is an indication of immediate laparotomy through lower midline. If untreated it may lead to sepsis and ARDS and ultimately death of the patient. Minimum age of the patient was 15 years and maximum age reported was 46 years. Most of the cases were between 20-30 years age. During operation findings were gangrenous appendix in 14 cases, perforated appendix with abscess formation in 12 cases and in 8 cases there was perforated appendix without abscess formation which presented relatively earlier. Complications after tube cecostomy included leakage from pericatheter in 3 cases, early dislodgement of catheter occurred in one case and retained catheter in 2 cases. After removal of catheter fistula formation was not seen in any patient that indicated this method prevents fecal fistula formation and it is much safe method with less morbidity and early recovery. Tube cecostomy is a safe and simple procedure for preventing fecal fistula formation after appendectomy. Fecal fistula is a common post operative complication in such cases leading to increased morbidity and longer duration of hospital stay and socially disability. This method has minimum complications with good outcome. In this study most common feature was found gangrenous appendix with black patches on it. Perforated appendix was associated with abscess formation in most of the cases while in few cases it was alone. In tube cecostomy catheter can be removed easily and no special care is required for the tube just general care is enough.

Patients and Methods

This is a descriptive type of study with that was completed in six months duration. It was conducted in a surgical ward of tertiary care teaching hospital. In this study 34 cases were included having appendicular mass or appendicular abscess. These cases were admitted in the ward via emergency department. Initially detailed history was taken and thorough examination was done. All necessary investigations were carried out to confirm the diagnosis. An inclusion criterion was formed on which basis only those cases were included in this study which presented with appendicular abscess or phlegmon formation. After investigations, which cases had other diagnosis, they were excluded from the study. All data of the patients in study group was documented properly. After taking anesthesia fitness these cases were operated and tube cecostomy was performed after appendectomy. These cases were retained in the ward for 4-6 days. Monitoring was done. Findings per operating were noted down. Complications during operation or

after it were observed. Appendicitis is a very common surgical condition most common in young and adult age. If it is not treated in time it can lead to perforation or phlegmon formation which mimics like mass in abdomen. Perforation mostly leads to abscess formation in right iliac fossae or pelvic abscess depending upon the position of appendix. After perforation of appendix patient present with the signs symptoms of peritonitis like abdominal distension, tenderness, fever, tachycardia, abdominal pain and raised TLC. In this study 34 cases were included having appendicular mass or appendicular abscess. Which cases developed any complication they were retained for more time and other cases were discharged on good antibiotics and they were called on follow-up after 10 days. Proper consent was taken from the patients for including their data in the study. Consent was also taken from the in charge of ward for conducting this study. Data was analyzed on Microsoft office and SPSS version 2017 and results were calculated in the form of frequencies and expressed in tables and graphs.

Results

This study was done on 34 cases with different ages and belonged to male and female populations. Ages of these cases was ranging from 15-50 years with mean age of 27.5 years. Minimum age of the patient was 15 years and maximum age reported was 46 years. Most of the cases were between 20-30 years age. During operation findings were gangrenous appendix in 14(41.2%) cases, perforated appendix with abscess formation in 12(35.3%) cases and in 8(23.5%) cases there was perforated appendix without abscess formation which presented relatively earlier. Complications after tube cecostomy included leakage from pericatheter in 3(8.8%) cases, early dislodgement of catheter occurred in one case and retained catheter in 2(5.8%) cases. After removal of catheter fistula formation was not seen in any patient that indicated this method prevents fecal fistula formation and it is much safe method with less morbidity and early recovery. Post operative complications were seen in 6(17.6%) cases and in rest of 28(82.3%) cases no complications occurred. This is a descriptive type of study with that was completed in six months duration. It was conducted in a surgical ward of tertiary care teaching hospital. In this study 34 cases were included having appendicular mass or appendicular abscess. These cases were admitted in the ward via emergency department. Initially detailed history was taken and thorough examination was done. All necessary investigations were carried out to confirm the diagnosis. An inclusion criterion was formed on



which basis only those cases were included in this study which presented with appendicular abscess or phlegmon formation. There were both male and female patients in this study accounting 22(64.7%) males and 12(35.3%) females. There were 5(14.7%) cases between 15-20 years, 8(23.5%) in

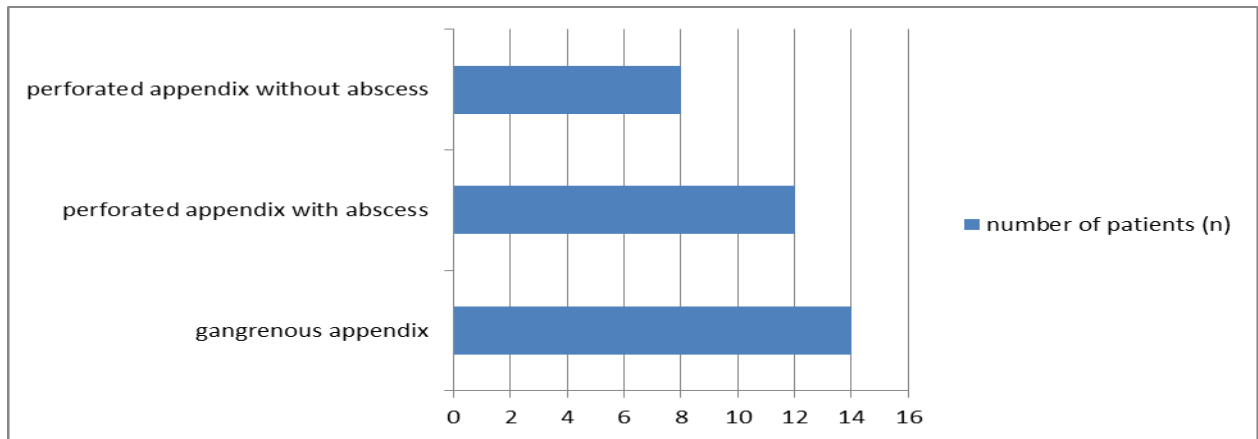
21-25 years, 6(17.6%) in 26-30 years, 2(5.9%) cases between 31-35 years, 7(20.6%) cases between 36-40 years and 4(11.76%) cases were between 41-45 years of age. There were 22(64.7%) male patients and 12(35.3%) were female patients in this study.

(Table-1) Age distribution among the patients in study group

Age of patients (years)	Number of patients (n)	(%)
15-20	5	14.7
21-25	8	23.5
26-30	6	17.6
31-35	2	5.9
36-40	7	20.6
41-45	4	11.76
Above 45	2	5.9
Total patients	34	100%

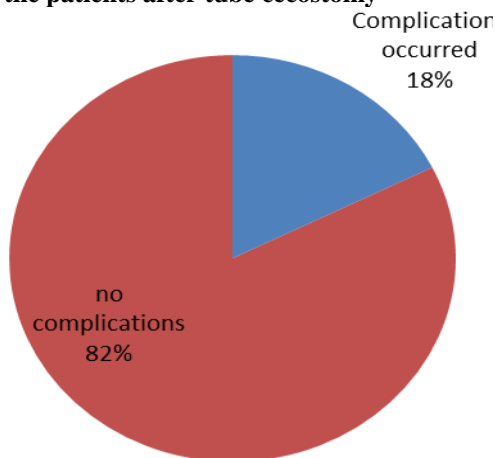
(Table-2) complications related to tube cecostomy

Features	Number of patients (n)	(%)
Leakage from pericatheter area	3	8.8
Retained catheter	2	5.8
Fistula formation	0	0
Early dislodgement of catheter	1	2.9



(Figure-1) Features of appendix found during operation

(Figure-2) frequency of complications among the patients after tube cecostomy





DISCUSSION

Tube cecostomy is a very useful procedure that is performed not only in appendicular abscess or mass but also in pseudo-obstruction of colon, cecal volvulus and cecal perforation. It is performed in variety of cases as it drains air out of the intestine so preventing fecal spillage within abdomen and preventing fecal fistula formation. Appendicitis is a very common surgical condition most common in young and adult age. If it is not treated in time it can lead to perforation or phlegmon formation which mimics like mass in abdomen. Perforation mostly leads to abscess formation in right iliac fossae or pelvic abscess depending upon the position of appendix. After perforation of appendix patient present with the signs symptoms of peritonitis like abdominal distension, tenderness, fever, tachycardia, abdominal pain and raised TLC. In this study 34 cases were included having appendicular mass or appendicular abscess. These cases were admitted in the ward via emergency department. Initially detailed history was taken and thorough examination was done. All necessary investigations were carried out to confirm the diagnosis. An inclusion criterion was formed on which basis only those cases were included in this study which presented with appendicular abscess or phlegmon formation. After investigations, which cases had other diagnosis, they were excluded from the study. All data of the patients in study group was documented properly. After taking anesthesia fitness these cases were operated and tube cecostomy was performed after appendectomy. This is a descriptive type of study with that was completed in six months duration. It was conducted in a surgical ward of tertiary care teaching hospital. In this study 34 cases were included having appendicular mass or appendicular abscess. These cases were admitted in the ward via emergency department. Initially detailed history was taken and thorough examination was done. All necessary investigations were carried out to confirm the diagnosis. An inclusion criterion was formed on which basis only those cases were included in this study which presented with appendicular abscess or phlegmon formation. After investigations, which cases had other diagnosis, they were excluded from the study. All data of the patients in study group

REFERENCES

1. Khan A W, Sheikh S H, Rahman M A. Results of emergency appendectomy for appendicular mass. *Mymensingh Med J* 2007; 16: 209-13.
2. De U, Ghosh S. Acute appendectomy for appendicular mass: a study of 87 patients. *Ceylon Med J* 2002; 47: 117-8.

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Conclusion

Fecal fistula formation is much common after appendectomy for appendicular abscess or appendicular mass this can be prevented by tube cecostomy. It is a very effective procedure and simple to perform with good outcome. Minimum complications are associated with this procedure. It minimizes morbidity and longer hospital stay is not required as recovery is quick. This procedure is also performed for other conditions as cecal volvulus, cecal perforation and colonic pseudo obstruction.



3. Taj M H, Qureshi S A. Early surgical management of appendicular mass. *J Surg Pakistan* 2006; 11: 52-6.
4. Erdoan D, Karaman I, Narci A, Karaman A, Cavu-poolu Y H, Aslan M K, Cakmak O. Comparison of two methods for the management for appendicular mass in children. *Pediatr Surg Int* 2005; 21: 81-3.
5. Ho C M, Chen Y, Lai H S, Lin W H, Hsu W M, Chen W J. Comparison of critical conservative treatment versus emergency operation in children with ruptured appendicitis with tumor formation. *J Formos Med Assoc* 2004; 103: 359-63.
6. Lasson A, Lundagards J, Loren I, Nilsson P E. Appendiceal abscesses: primary percutaneous drainage and selective interval appendectomy. *Eur J Surg* 2002; 168: 264-9.
7. Ali N, Javaid A. Role of tube cecostomy in preventing post appendectomy abscess and fistula formation. *Pak J Med Sci* 2005; 21: 285-88.
8. Rafi M, Arshad M S, Ahmad S, Haq R U. Appendectomy; non-invagination vs. invagination of appendicular stump. *Ann King Edward Med Coll* 2006; 12: 58-60.
9. Hrivio A, Besznyak I. Changing diagnostic and therapeutic approaches to the 'Ogilvie syndrome'. *Acta Chir Hung* 1998; 37: 1-9.
10. Clark D D, Hubay C A. Tube cecostomy: an evaluation of 161 cases. *Ann Surg* 1972; 175: 55-61.
11. Benacci J C, Wolff B G. Cecostomy. Therapeutic indications and results. *Dis Colon Rectum* 1995; 38: 530-4.
12. Vaughn P, Schilinkert R T. Management of ceceal perforation secondary to Ogilvie's syndrome by laparoscopic tube cecostomy. *J Laparo-endoscopic Surgery* 1995; 5: 339-34.
13. Lewin J, Fenyo G, Engstrom L. Treatment of appendiceal abscess. *Acta Chir Scand* 1988; 154: 123-5.
14. Rintoul R F. Operations on appendix. Rintoul R F. *Farquharson's Textbook of Operative Surgery*. Churchill Livingstone New York 1995: 451-8.
15. Ellis B W. Acute appendicitis. Ellis B W. *Hamilton Bailey's Emergency Surgery*. Cambridge: Butterworth Heinmann 1995; 411-3.
16. Thompson J E, Bennion R S, Schmit P J, Hiyama D T. Cecostomy for complicated appendicitis. *J Am Coll Surg* 1994; 179: 135-8.
17. Lane J S, Schmit P J, Chandler C F, Bennion R S. Ileostomy is definitive treatment for advanced appendicitis. *Am Surg* 2001; 67: 1117-22.