International Surgery Journal
Varghese VA et al. Int Surg J. 2025 Mar;12(3):434-436
http://www.ijsurgery.com
pISSN 2349-3305 | eISSN 2349-2902

DOI: https://dx.doi.org/10.18203/2349-2902.isj20250585

Case Report

Unique and one of the longest appendix operated recently: a case report

Varsha Anna Varghese*, Satyajeet Pravin Khenat, Gaurav Bapu Patil, Mayuresh Chandrakant Jagtap, Pushpak Kiran Patil, Ananta Kulkarni

Department of General Surgery, Bharatratna Atal Bihari Vajpayee Medical College, Pune, Maharashtra, India

Received: 19 December 2024
Accepted: 23 January 2025

***Correspondence:**
Dr. Varsha Anna Varghese,
E-mail: varshavarghese7@gmail.com

ABSTRACT

Appendectomy is usually performed as an emergency operation to treat appendicitis, which is when the appendix becomes inflamed and infected due to an obstruction. We present the case of an 18-year-old boy with persistent pain in right iliac fossa, which was clinically diagnosed as appendicitis. On investigations, an ultrasound of abdomen and pelvis revealed inflamed appendix with free fluid surrounding appendix. Exploratory open appendectomy was done. Intraoperatively, it demonstrated a very long 17.2 cm inflamed appendix which was removed successfully and rest was uneventful Postoperatively, patient is doing well on follow-up. Hence, it is concluded that in patients with appendicitis, appendectomy is the definitive management along with antibiotics. If delayed can present as perforated appendix and leading to further complications.

Keywords: Open appendectomy, Longest appendix, Appendectomy

INTRODUCTION

Appendectomy is surgery to remove inflamed or infected appendix. The vermiform appendix is an organ that can vary in size, site, and presence, as well as in other clinical and functional aspects. It is a blind muscular tube with mucosal, sub mucosal, muscular and serosal layers. Because an inflamed appendix has the potential to rupture (burst), appendicitis is a medical emergency.[1] The lifetime risk of acute appendicitis ranges from 9% to 10%. Appendectomy is a relatively safe procedure, with a mortality rate ranging from 0.09% to 0.24 %, and serves as the definitive treatment for appendicitis.

Acute appendicitis most commonly occurs between the ages of 10 and 20 years. Despite a significant change in managing acute appendicitis with primary antibiotic therapy, the primary option for treating acute appendicitis remains a surgical approach. A large, randomized trial of antibiotic therapy for the primary management of acute appendicitis showed that while antibiotic therapy might have comparable results with appendectomy in the short term, 1 of 4 participants in the antibiotic therapy arm required appendectomy within one year.[2] Here, we present a unique case report of longest appendix removed through open appendectomy in a young boy.

CASE REPORT

An 18-year-old male presented to the surgical outpatient department with severe abdominal pain prominent at right iliac fossa since a week. The patient had no history of any trauma, urinary symptoms, or any comorbidity. Patient had associated complaints of nausea, fever, anorexia. On taking detailed history of patient, he revealed that he stopped going to gym since, 1 year. On examination, palpable mass in right iliac fossa along with tenderness at McBurney's point was noted. Temperature of 100 F was noted. His hemogram reports revealed leucocytosis with left shift (TLC=17300 mm^3). On investigations, an ultrasound of abdomen and pelvis revealed inflamed appendix with free fluid surrounding

appendix. Prior to appendectomy, administration of prophylactic antibiotics against aerobic and anaerobic gram-negative bacteria was done.

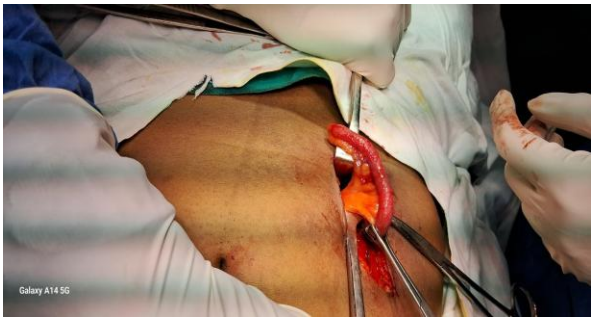

Figure 1: Appendectomy.

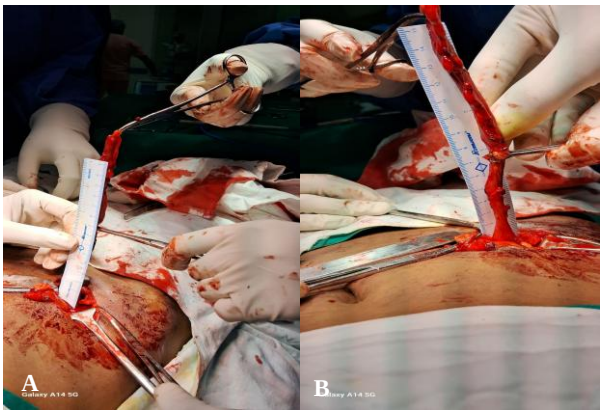

Figure 2 (A and B): During surgery.

Exploratory open appendectomy was done by McBurney's incision. A McBurney incision is made one-third of the way from the anterior-superior iliac spine (ASIS) to the umbilicus following langer lines. Separate the external oblique, internal oblique, and transversus abdominis muscles along their fibres.[3]

A long and slightly inflamed appendix in pre-ileal position. The appendix measured about 17.2 cm in length which is considered to be one of the longest recorded appendectomy specimens. It was an inflamed appendix and was sent for histopathological examination. Surgery was uneventful. The patient was discharged 5 days after the surgery and was advised to follow up for suture removal after 5 days and maintain local hygiene over wound site. Histopathological examination of the removed appendix confirmed an inflamed appendicular tissue. Post- operative period was uneventful.

DISCUSSION

The appendix, a true diverticulum arising from the posteromedial cecal border, is located in close proximity to the ileocecal valve. The term vermiform is Latin for worm-like and ascribes to its long, tubular architecture. In contrast to an acquired diverticulum, it is a true diverticulum of the colon and contains all of the colonic layers: mucosa, submucosa, longitudinal and circular muscularis propria and serosa.[4] The appendix can have a variable length, ranging from 5 to 35 cm, an average of 9 cm.[5] Acute appendicitis follows pathogenesis similar to that of other hollow viscous organs and is thought to be most often caused by obstruction.

A fecalith, or sometimes a gallstone, tumor, or worms obstructs the appendiceal orifice, causing increased intraluminal pressure and compromised venous outflow. In the young, obstruction is more often caused by lymphoid hyperplasia. The appendix receives its blood supply from the appendicular artery, which is an end artery. As intraluminal pressure exceeds the perfusion pressure, ischemic injury results, encouraging bacterial overgrowth and triggering an inflammatory response.

This becomes a surgical emergency because perforation of the inflamed appendix can leak bacterial contents into the abdominal cavity.[6] The longest appendix measured 26 cm (10.24 in) when it was removed from 72-year-old Safranco August (Croatia) during an autopsy at the Ljudevit Jurak University Department of Pathology, Zagreb, Croatia, on 26 August 2006. Ivana Pavic performed the autopsy and Alma Dubravic attended.[7] In our case, the removed appendix measured about 17.2 cm, which can be considered as one of the longest appendix in a live patient. Diagnosis of acute appendicitis is sometimes puzzling and can be confused with the Meckel's diverticulum, therefore it requires high level of suspicion. In managing acute appendicitis, assess ileum proximal to the ileocecal valve to exclude ovarian abnormalities or Meckel's diverticulum. During management of appendectomy, if the base of appendix is inflamed, base should not be crushed. It should be buried with purse string suture. In another situation, if base of appendix is gangrenous, right hemicolectomy should be performed. And lastly appendix is not inflamed, then search last 2 feet of ileum for Meckel's diverticulum. Our patient had an inflamed, one of the longest appendix and underwent an elective open appendectomy and was discharged after 5 days and was doing well on follow-up.

CONCLUSION

Surgical management of appendicitis is still the gold standard for the patients with acute appendicitis of any size, while conservative management with antibiotic therapy may still require surgical management. From this rare case of long appendix of 17.2 cm, we would like to conclude that for the cases of appendicitis, surgical management is the only mainstay treatment of choice and should be done as soon as possible to prevent further complications like perforation or ruptured appendix.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Indah TR. Operasi Usus Buntu, Prosedur dan Pemulihannya. Available at: https://my.clevelandclinic.org. Accessed on 22 August 2024.
2. Nguyen A, Lotfollahzadeh S. Appendectomy. 2023 Jun 3. StatPearls. Treasure Island (FL): StatPearls Publishing. 2024.
3. McBurney C. IV. The incision made in the abdominal wall in cases of appendicitis, with a description of a new method of operating. Ann Surg. 1894;20(1):38-43.
4. Deshmukh S, Verde F, Johnson PT, Fishman EK, Macura KJ. Anatomical variants and pathologies of the vermix. Emerg Radiol. 2014;21(5):543-52.
5. Schumpelick V, Dreuw B, Ophoff K, Prescher A. Appendix and cecum. Embryology, anatomy, and surgical applications. Surg Clin North Am. 2000;80(1):295-318.
6. Childers CP, Dworsky JQ, Maggard-Gibbons M, Russell MM. The contemporary appendectomy for acute uncomplicated appendicitis in adults. Surgery. 2019;165(3):593-601.
7. Largest appendix removed. Available at: https://www.guinnessworldrecords.com/world-records/largest-appendix-removed. Accessed on 22 August 2024.

Cite this article as: Varghese VA, Khenat SP, Patil GB, Jagtap MC, Patil PK, Kulkarni A. Unique and one of the longest appendix operated recently: a case report. Int Surg J 2025;12:434-6.