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General Surgery

A RARE CASE REPORT OF 14CM LONG APPENDIX WITH A MANAGEMENT DILEMMA.

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ABSTRACT The appendix is a worm-shaped, tubular structure which is found attached to the caecum just distal to the ileo-caecal junction in humans. Some consider it a vestigial organ in humans while others are of the opinion that it is a lymphoid organ. Inflammation of the appendix causing appendicitis is the most common disease of the appendix, which is managed by emergency appendectomy, which is the most common emergency operation done throughout the world. The appendix is usually 6 to 9cm in length. The position of appendix can be retrocecal, pelvic, subcecal paracecal, preileal or postileal. Different positions of the appendix are responsible for different clinical presentations apart from common symptoms and on top of that, a long subhepatic appendix can further confuse the picture and produce a diagnostic dilemma. Thus, a good clinical acumen and a high index of suspicion are required to lower the morbidity and mortality associated with a delayed diagnosis of acute appendicitis.

KEYWORDS : Acute appendicitis, appendix, length of appendix, appendectomy, subhepatic appendix.

INTRODUCTION:

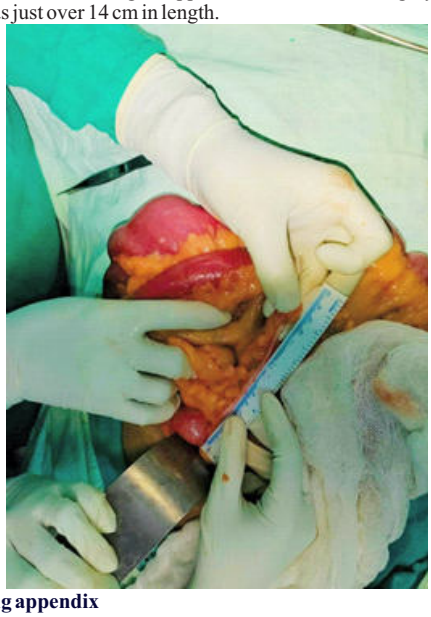
The vermiform appendix is a tubular, worm-shaped structure found attached to the ceacum in human beings. Some consider it to be a vestigial organ in humans while others are of the opinion that it is a lymphoid organ. But it's inflammation can lead to acute appendicitis which is the most common surgical emergency in the world and Appendectomy is the most common emergency surgery performed worldwide. The mortality rate was as high as 67% in 1886 but now it is reported to be less than 1% thanks to the better antibiotics and advances in surgery [1,2]. The appendix is usually from 6 to 9 cm in length. The position of appendix can be retrocecal, Pelvic, Subcecal, Paracecal, Preileal or Postileal, which can produce a varied picture in the clinical presentation [3].

CASE REPORT:

We report a case of 61 year old female who presented to the emergency department with a pain in the right hypochondrium. The patient presented with complaints of fever, nausea and loss of appetite. There was no history of migratory pain, no history of dysuria. The ultrasound of the abdomen revealed no remarkable abnormality. The digital x-ray of the abdomen showed no significant air fluid levels. There was no free gas under the diaphragm in digital chest x- ray. The total leucocyte count was 15000 per mm3 with neutrophil count of 74%. On examination there was tenderness in the right hypochondrium and right lumbar region. The pain increased on hyper extending the hip joint. The patient had a pulse rate of 120 per minute. Thus the diagnosis of acute appendicitis was made on a clinical basis and the patient was taken up for surgery. The appendix was retroceacal in position and reached upto the hepatic flexure just below the liver (subhepatic). It was inflamed and measured 14 cm. The histopathological examination of the specimen confirmed the diagnosis. The patient made an uneventful recovery and was discharged on fifth post-operative day without any complications.

DISCUSSION:

The appendix is a worm like tubular structure containing mucosa, submucosa, muscular layer and serosa, and is present just distal to the junction of ileum with ceacum in primates, some apes and wombats [4,5]. In lower animals it is known to help in the digestion of cellulose but exact role of appendix in humans is not clear. Some believe it is a vestigeal organ while some believe it is a lymphoid organ. It is believed to serve as a nidus for the gut friendly bacteria [6]. The differential development of the ceacum is responsible for the different positions of the appendix. Most common position of the appendix is retrocecal followed by pelvic, paracecal, subcecal, pre ileal and post ileal. The appendix is usually 6-9 cm long but the different apendices has been reported from 1 cm to 30 cm in length [3] Acute appendicitis is the most common disease of the appendix and appendectomy is probably the most common operation performed in emergency. It's incidence is greatest between the ages of 10 to 30 year age group [7]. The Alvarado score is the most common assessment tool used for diagnosing acute appendicitis [8,9]. Ultrasound and CT-Scan of the abdomen are used as aids in the diagnosis [5,10]. Different positions of the appendix can produce some confusing picture. For eg: pelvic appendix can irritate the ureter and can present like urinary tract infection or it can result in diarrhoea if it irritates the rectum. Hyperextension of the hip joint can aggravate the pain in retrocecal appendicitis however the typical tenderness and rigidity may be absent in right iliac fossa. The post ileal appendix may present with pain just to the right of the umblicus whereas the typical right iliac fossa pain may be absent. In children appendicitis may be confused with gastroenteritis, meckel's diverticulitis or intussusception. The diagnosis may be delayed and hence the children and infants may present with peritonitis due to ruptured appendix. It is difficult to elicit tenderness in obese patients. The elderly patients may present with gangrenous appendix. In pregnant females, the symptoms may be referred to pregnancy and the delay in diagnosis can lead to fetal loss. Other differential diagnosis in females could be pelvic inflammatory disease, torsion of ovary, ruptured ectopic pregnancy and Mittelschmerz [9]. The most common cause of acute appendicitis is obstruction caused by fecolith. Other causes could be lymphoid hyperplasia, tumor, worms, or seeds [2]. The term appendicitis was coined by Reginald Fitz, but the first documented appendicectomy was by Kronlein in 1886.The most famous work on appendicitis was by Charles Mcburney who described the position of the base of the appendix. In his paper in 1894 he described the incision for appendicectomy. Kurt Semm performed the first laparoscopic appendicectomy in 1982 [11]. The longest reported appendix removed from a living person has been 26 cm. We are reporting one of the longest appendices removed at surgery in India which was just over 14 cm in length.



14cm long appendix

CONCLUSION:

Acute appendicitis is the most common disease of the appendix. Appendectomy is most common emergency operation performed worldwide. It's unusual to find long appendices in adults. Furthermore the retrocecal position of the appendix can make the diagnosis of acute appendicitis a difficult one and hence any delay in treatment can increase the morbidity and mortality. Hence a high index of suspicion and good clinical acumen is required to make a diagnosis of acute appendicitis.

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