CASE REPORT

APPENDICEAL DUPLICATION PRESENTING AS ACUTE APPENDICITIS

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ABSTRACT

Anomalies of appendix are a rare and are usually discovered incidentally during surgery. A 23 year old female was operated for acute appendicitis and per operatively two appendiceal lumen were found. Appendiceal duplication should be kept in mind in patients presenting with acute appendicitis especially when appendix is found non inflamed and in cases where patient has previous history of appendicectomy and presents with signs and symptoms of acute appendicitis.

Keywords: Appendiceal duplication, Inflammation.

INTRODUCTION

Appendicectomy is the one of the most common surgical procedure and appendiceal duplication is the rarest of the gastrointestinal anomalies. The reported incidence of appendiceal duplication is 0.004%[1]. Appendiceal duplication is usually asymptomatic, mostly diagnosed during surgery or on post mortem examination. Few are detected during barium examination or CT scans. Symptoms are usually due to obstruction or inflammation and depend upon the location of the appendices[2]. It may or may not be associated with other congenital anomalies[3].

CASE REPORT

A 23 years old unmarried female with no previous medical or surgical history presented with migratory right iliac fossa pain, nausea and vomiting of two days duration. On examination, she had pulse of 80/ min and was afebrile. Abdomen was soft with tenderness and rebound tenderness in the right iliac fossa. Her Total Leucocyte Count was 9.3×10^9/L with 85% neutrophils. Ultrasound of the abdomen ruled out any renal or pelvic pathology. Urinalysis did not reveal any abnormality. A diagnosis of acute appendicitis was made and patient was prepared for surgery.She was kept nil per oral. Cefuroxime 1.5 gm I/V wasgiven pre operatively. Grid iron incision was made and omentum was found lying in the right iliac fossa. Appendicectomy was performed in the usual manner and two lumen were found. Caecum, terminal ileum and right ovary were normal. Patient had uneventful recovery and was discharged in the first post op day. Histopathology of the appendix showed double appendix with separate serosal and muscular layers for short distance and separate mucosa and common muscular layer for the rest of length.

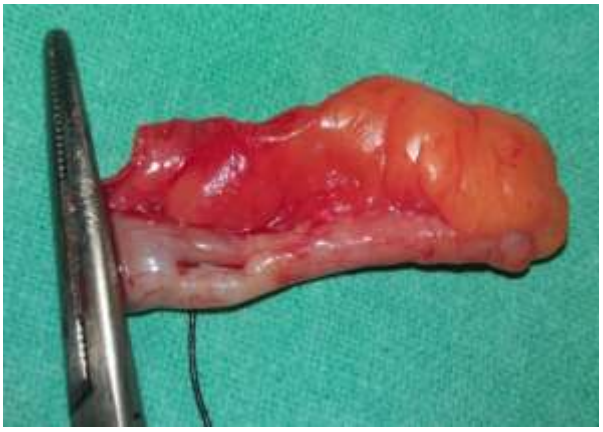

Figure: Double barreled appendix (Cave-Wallbridge classification Type A).

DISCUSSION

Appendiceal duplication was first reported by Picoli in 1892 in a female patient who had duplication of entire large bowel, two uteri, two vagina, ectopic vesicae and exomphalos[4].

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Wallbridge modified Cave's original classification of duplicated vermiform appendix which is now known as Cave–Wallbridge Classification[5,6]:

Type A: Also known as "double barreled" appendix. Single caecum and incomplete duplication usually two tubes with separate mucosa and sub mucosa but enclosed in single muscular coat.

Type B1: Symmetric duplication at both sides of the iliocaecal valve, also called "bird like" because of its resemblance to normal arrangement in birds.

Type B2: Also called "tinea colic"because oneappendix at normal location and the other rudimentary at variable location away from normal one but along the line of tinea coli.

Type C: Duplication occurring with Caecum duplication.

The condition should be differentiated from solitary diverticulum of the caecum or appendiceal diverticulum. Histopathology of the appendix helps in differentiating this conditions[7]. Our patient was having type A duplication and was not having any history of congenital anomalies.

In patients with appendiceal duplication, when only one of them is found inflamed, both should be remove to avoid future diagnostic confusion. However, non inflamed duplication found incidentally during exploration for another reason need not to be subjected to appendicectomy but should be documented and explained to the patient[8].

A rare case of triple appendix has been reported by Tinckler, foundincidentally during laparotomy for another reason associated with double penis and ectopic vesicae[9].

Purpose of reporting this case is that surgeons, especially residents should be aware of the anomalies of appendix and thorough inspection of the caecum should be made to avoid missing any anomalies. Misdiagnosis may lead to life threatening complications to the patient and medico legal issues[10].

CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

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