

## Case Report

### DOUBLE APPENDIX: CASE REPORT

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#### Abstract

A 31 year old male patient presented with signs and symptoms of acute appendicitis, operated on. Per-operatively revealing 2 perforated appendices one was in retrocecal area and the other was voluntarily appeared subcecaly.

Appendectomy was done for 2 appendices with more than one drain. The patient passes in smooth postoperative course.

Keywords: Double Appendix, Appendicitis

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#### Case Report

A 31 year old male patient working as a butcher and living in Al-Aadhmiya presented to Al-Kadhimiya Teaching Hospital with abdominal pain of 48 hours duration.

The condition started gradually as a dull central abdominal pain shifted to right lower abdomen after few hours. The pain was squeezing in nature, increasing by movement, relieving by lying still. The condition associated with nausea and vomiting (3 times), the vomits was yellow in color, little amount, contain no blood and not projectile. The patient presented with loss of appetite with no alteration of bowel habit. Also the condition associated with fever which was associated with sweating and was relieved only by medication.

The patient went to other hospital before he was admitted to our center and treated as a case of abdominal colic with no benefit.

On examination the patient was conscious, oriented, of a body temperature 38.1 C, pulse rate 120 / min and blood pressure 120/90 mmHg. The abdomen was flat did not move with respiration, by palpation there was rigidity and tenderness particularly in right iliac fossa and umbilical region. Cough sign, rebound tenderness and Rovsing's sign were positive. No organomegally, no palpable mass. The percussion revealed tympanic abdomen and the auscultation showed, negative bowel sound.

Emergency laboratory investigations were done, including PCV which was normal, WBC count was slightly elevated, urinalysis was normal.

Decision was made to be operated on as a case of acute appendicitis.

The operation: After the Grid-Iron incision that was made, two perforated appendices were revealed. One was retrocecal, obstructed contain faecolith (Picture No.1B) and the other was subcecal (Picture No.1A), they had 2 separated bases 1.5cm apart. Appendectomy was done for both of them, washing the peritoneal cavity with normal saline was done. Tow tube drains were put, in the pelvis and the other retrocecaly, other corrugated drain was put near the area of muscle cutting then the wound was closed in layers.

First postoperative day the patient passed flatus and started oral fluid, in second postoperative day the patient pass motion and pelvic tube drain and the corrugated drain were removed, while the retrocecal tube drain was removed on third postoperative day then the patient discharged in good general condition.



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## Discussion

The common congenital abnormalities of the appendix are: agenesis of appendix, left sided appendix, double appendix<sup>1,2</sup>. Duplication of the appendix is a rare congenital abnormality and less than 100 cases were reported since the first description in 1892<sup>5</sup>. Embryological origin is controversial, but duplications would occur in the absence of the involution of the appendicular process after eightieth week gestation. According to the definition of Ladd and Gross, they explained that the duplication of appendix just like any other of digestive system<sup>3</sup>. One of explanation of the origin is offered by Kelly and Herdon (1905) who described a second transient appendix appearing in 10mm embryos. Mitchell (1905) who postulated the occurrence of a double appendix as a phylogenetic reversion to the paired caecal arrangement found in birds. This theory is not acceptable on the grounds that birds are not direct ancestors of man in evolutionary development<sup>4</sup>.

Cases of double appendix may be classified as the following:

Type A: Which is called double-barreled appendix<sup>5</sup>. A single caecum and one appendix exhibiting various degrees of partial duplications<sup>4</sup>.

Usually two separate tubes, each is lined by mucosa and is separated by submucosa, and is enclosed in a single common muscle coat<sup>5</sup>.

Type B: A single caecum with two completely separate appendices. This group can further be subdivided into:

Type B (I): It is called the bird-like type due to the resemblance to the normal arrangements in birds, here there are two appendices symmetrically placed on either side of the ileocaecal valve<sup>4</sup>. It described only in infants with multiple abnormalities<sup>5</sup>.

Type B (II): It is called the taenia-colic where one appendix comes of the caecum at the usual site, the other usually rudimentary, and arising from the caecum almost always along the lines of the taenia at the varying distance from the first. In our case one was retrocaecal which was in normal position (Picture No.1B), the other was subcaecal which was voluntary (Picture No.1A).

TYPE C: It is a double caecum, each with an appendix<sup>4</sup>.

In some instances one of the twin appendices has been found acutely inflamed and the other uninvolved<sup>1</sup>.

The condition must be distinguished from a solitary diverticulum of the caecum which is found on the inner side of the ileocaecal angle; and histologically the wall of the diverticulum does not contain lymphoid tissue<sup>4</sup>.

Duplication of the appendix is usually an operative diagnosis and when it found treatment will follow the same rules of acute appendicitis in which appendicectomy should done for both appendices with or without drainage of the operative area.

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