Duplex Vermiform Appendix: A Case Report of a Rare Anomaly

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Citation

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Abstract

The incidence of duplex vermiform appendix is very rare and less than 100 duplex verimiform appendices have been reported. This is a case report of a type-B duplex vermiform appendix with common base, in which one was grossly inflamed, more at the tip, and the other was gangrenous.

INTRODUCTION

According to Basu et al.[1]this anomaly of the alimentary canal is rare and they have not found any duplex vermiform appendix in his series. Picoli[2](1892) reported the first case of duplex vermiform appendix in a female patient who had associated anomalies of duplication of the entire large bowel. Gupta and Kak[3](1964) could collect fewer than 50 case reports. Fewer than 100 cases have been reported[4]. Cave and Wallbridge[5]have classified the duplication of appendix into three types: A - Partial duplication of the appendix on a single caecum; B - Single caecum with two completely separate appendices; B1 - “Bird-like appendix” called so because of its resemblance to the normal arrangement in birds, where there are two appendices symmetrically placed on either side of the ileo-caecal valve; B2 - One appendix arises from the usual site on the caecum, with another rudimentary appendix arising from the caecum along the line of a taenia coli; and C - Two caeca, each bearing an appendix. The present case represents Type B of appendicular duplication.

CASE REPORT

An 8-year-old male child presented with complaints of acute-onset pain of 24 hours duration in the umbilical region which migrated to the right iliac fossa, nausea, vomiting, and anorexia. On examination, the child had a pulse rate of 104, low-grade fever, tenderness and rebound tenderness at McBurney's point. Laboratory investigations showed leukocytosis, predominately polymorphs (87%). A clinical diagnosis of acute appendicitis was made. On laparotomy through right lower transverse abdominal incision, a type-B duplex vermiform appendix was found with common base, in which one was grossly inflamed, more at the tip, and the other was gangrenous (Figure 1). Appendectomy was performed and the specimen (Figure 2) kept in the museum of the Department of Surgery, Government Medical College, Srinagar.

Figure 1

Figure 1: On laparotomy through right lower transverse abdominal incision, a type-B duplex vermiform appendix was found with common base, in which one was grossly inflamed, more at the tip, and the other was gangrenous.

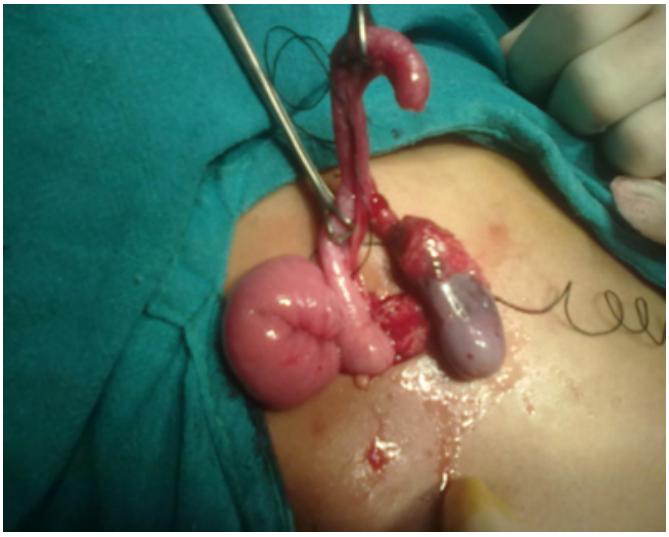
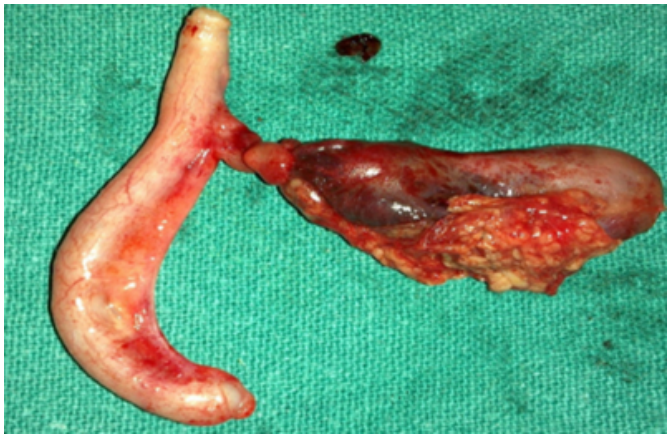


Figure 2

Figure 2: Appendectomy was performed and the specimen kept in the museum of the Department of Surgery, Government Medical College, Srinagar.



DISCUSSION

The appendix is a part of the caecum and is capable of contracting and dilating so that the excessive wind does not rupture the caecum. The vermiform appendix has always been shrouded by controversies. It lay hidden in the right lower abdominal quadrant for millennia, its function and role in disease was obscure. As we know today, it is the terminal portion of the embryonic caecum. The appendix becomes distinguishable by its failure to enlarge as fast as the proximal caecum and it becomes visible at about the eighth week of gestation. At first, it projects from the apex of the caecum and as the caecum grows, the origin of the appendix shifts medially toward the ileocaecal valve. Blood supply to the appendix is mainly from the appendicular artery, a branch of the ileocolic artery. This artery courses through the mesoappendix posterior to the terminal ileum. An accessory appendicular artery can sometimes branch from the posterior caecal artery.Duplex vermiform appendix is reported with an incidence[4]of 0.004% and may be associated with other anomalies.[6]Till now, the only triple appendix, a unique case, has been reported by Tinckler (1968)[2,8]. Duplex vermiform appendices are usually asymptomatic; themajority of them are diagnosed at surgery. Symptoms are usually the result of obstructionand inflammation. In patients with duplex or triple vermiform appendix, when only one ofthem is found to be inflamed on exploration or laparoscopy, all of them should be removed so as to avoid diagnostic confusion that may arise after removal of single appendix[7].

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