

Acute Torsion of Vermiform Appendix: A Rare Cause of Acute Abdomen

Amir Hussain

RKM Hospital, Calcutta, West Bengal, India

*Corresponding Author:

Name: Amir Hussain

Email: dramirhussain@yahoo.com

Abstract: Acute torsion of vermiform appendix is a rare, where appendix twists at its own axis. Hereby case report of primary acute torsion of vermiform appendix in a 2 year old boy who presented with clinical signs of acute appendicitis has been reported.

Keywords: Appendix, Torsion, acute abdomen, Appendicitis

INTRODUCTION

Torsion of vermiform appendix is rare and is clinically indistinguishable from acute appendicitis. I present a case report of primary acute torsion of vermiform appendix in a 2 year old boy who presented with clinical signs of acute appendicitis. I believe that to the best of our knowledge, this is the youngest patient ever reported with primary acute torsion of vermiform appendix.

CASE REPORT

A 2 year old boy was admitted to the hospital with 2 day history of right sided abdominal pain associated with multiple episodes of vomiting. On examination, he was pyrexial with a temperature of 37.8 C. Abdominal examination showed tenderness in right iliac fossa with guarding. Blood white cell count was $20.0 \times 10^9/L$ with neutrophil count of $15.9 \times 10^9/L$. C-Reactive protein was 21 mg/L. Examination under anaesthesia showed a mass in right iliac fossa and laparotomy was performed through a McBurney's incision for possible acute appendicitis. A sub-caecal appendix that had twisted on its long axis, at its base, more than 270 degree in an anticlockwise direction. Appendix was 8 cm in length and was distended, congested and deep purple in colour with gangrenous changes. There was no pus in the peritoneal cavity. Postoperative period was uneventful. Histological examination of the specimen showed an infarcted congested appendix with an acute transmural appendicitis.

DISCUSSION

Acute torsion of vermiform appendix is a rare cause of acute abdomen, where appendix twists at its own axis. There are 21 reported cases of torsion of vermiform appendix in English language literature, which include 13 paediatric cases [1, 5, 16].

Collins [2], in his analysis of 71000 appendix specimens, summarizing 40 years study, did not describe any case of torsion. Chang [3] in 1983 reported an incidence of two in 3003 appendectomies, and Lee [4] found an incidence of 3 in 1869 appendectomies.

There are several common features in reports of torsion [1, 5]. In most reports length of appendix is greater than 7 cm. Position of appendix is variable. The site of torsion occur most frequently 1 cm or more from the base and less often at the base of appendix, with clear demarcation between normal and abnormal appendix. The direction of rotation is also variable, more frequently anticlockwise than clockwise. The degree of rotation varies from 270 to 1080 degree. In children mean age is 9.1 years, the range 3-16 years.

The aetiology of the condition is uncertain. The histological findings noted the presence of acute inflammatory cells, congestion and haemorrhagic infarction [6-8]. Payne [9] originally postulated that a faecolith act as a point around which an irregularly contracting appendix might pivot. Mcfadden [10] and others [6, 11-13] also supported Payne's original concept of torsion occurring as the primary event. Beevor's [14], however hypothesised that inflammation of the appendix causing distension of the distal appendix as a primary event rendering it unstable and thus more likely to twist.

Torsion can be a cause of auto-amputation of the appendix and therefore an explanation for the apparent congenital absence or agenesis of appendix [1]. Thus before making a diagnosis of congenital absence of appendix one should look for separate mummified appendix.

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