Internet Journal of Medical Update

Journal home page: http://www.akspublication.com/ijmu

Case Report

Torsion of the Vermiform Appendix: A case report

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ABSTRACT: Torsion of the vermiform appendix is a rare condition with few cases reported in the literature. Various factors predispose to torsion. Various factors predispose to torsion. We report a case of primary torsion of the vermiform appendix. The clinical presentation was indistinguishable from acute appendicitis and the diagnosis was made at operation. Appendix was preileal in position and the direction of torsion was anticlockwise. There was intrinsic torsion with no obvious factor for torsion identified. Appendectomy was performed.

KEY WORDS: Torsion; Vermiform appendix

INTRODUCTION

Acute appendicitis is a commonly encountered surgical emergency. A variety of diseases of the appendix present as appendicitis. But torsion of appendix is rarely seen. This condition remains a rare entity that seldom is diagnosed preoperatively. Torsion of the appendix mimics acute appendicitis[1]. Only twenty-five cases have been reported in the literature till date[2,3]. Torsion of the appendix may occur at any age, ranging from 3yrs to 60 years with mean age of 23 years. Primary torsion appears to be associated with a long appendix which is lying freely or pelvic. Appendectomy is the treatment.

CASE DETAILS

A 13 year old boy presented with colicky pain in the right lower abdomen of 16 hours duration. On examination, the temperature of 99ºC with pulse of 98/minute and blood pressure of 110/80 mmHg were recorded. Abdominal findings were tenderness in right iliac fossa, rebound tenderness and the positive Rovsing sign. Per rectal examination did not reveal any significant finding. Abdominal radiograph showed localized ileus in the right lower quadrant. Abdominal sonography showed marked probe tenderness. Preliminary diagnosis of acute appendicitis was made with an Alvarado score of 8. Operative findings were an 8 centimeter long inflamed appendix pre-ileal in position. There was localized ileus of gut adjacent to the appendix. The mesoappendix was narrow and azygotic folds of appendix were absent. The appendix was rotated anticlockwise through 360º. The point of rotation was about 2.5cm distal to its base as shown in **Figure 1** and **2**. The lumen contained no fecolith. Appendectomy was done.

Figure 1: Showing torsion of appendix at 360 degrees rotation

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Figure 2: Showing point of torsion 2.5 cm distal to base and the gangrenous tip

Postoperative period was uneventful and histopathological findings were suggestive of acute appendicitis. In our case, the free lying appendix had a narrow mesoappendix, absence of azygotic folds and therefore an intrinsic predisposition to torsion.

DISCUSSION

Payne in 1918 first reported torsion of the appendix[4]. Lack of characteristic etiological, clinical and radiological features makes preoperative diagnosis difficult. This clinical condition is more common in children than adults, with males having greater predisposition for torsion of appendix[5]. There is still uncertainty whether torsion of the appendix is a primary event or secondary to appendicitis[6,7]. Etiological factors responsible for primary torsion are anatomical variation in the mesoappendix such as being fan shaped with narrow base, and absence of azygotic folds that normally attach appendix laterally[6]. Strenuous physical exercises, mucocele, adhesions, appendiceal tumors or fecolith are other contributory factors. A fecolith may act as a point around which irregularly contracting appendix might pivot. This view is supported by absence of inflammation in a few of the specimens. Secondary torsion of appendix occurs after primary inflammation resulting in distension of the distal part rendering it unstable and making it prone to torsion[8]. Appendix can undergo torsion either anticlockwise or clockwise with the direction frequently being anticlockwise[9]. The site of torsion is variable being about 1 centimeter or more distal to the base of appendix in most cases. Degrees of torsion range from 270º to 1080º with mean of 580º. Appendectomy is indicated for torsion of appendix.

CONCLUSION

Torsion of the vermiform appendix is rare and can occur at any age. The appendix may have intrinsic predisposition to get twisted. There should be predisposing factor for the primary torsion to occur. Secondary torsion follows inflammation. Appendectomy should be preceded by untwisting if possible, and transfixed close to base in case of torsion of vermiform appendix to avoid torsion of the stump of appendix.

REFERENCES

1. Bestman TJ, van Cleemput M, Detournay G. Torsion of the vermiform appendix: a case report. *Acta Chir Belg.* 2006 Mar-Apr;106(2):228-9.
2. Sarin YK, Pathak D. Torsion of Vermiform Appendix. *Ind Pediatr*. 2006;43:266-267
3. Baeza-Herrera C, Garcia-Cabello LH, Leon-Cruz A, et al. Torsion of the vermiform appendix associated with intussusception. *Cir Cir*. 2006 Sep-Oct;74(5)369-71.
4. Payne JE. A case of torsion of the vermiform appendix. *Br J Surg*.1918;6:327.
5. Val-Bernal JF, González-Vela C, Garijo MF. Primary acute torsion of the vermiform appendix. *Pediatr Pathol Lab Med.* 1996 Jul-Aug;16(4):655-61.
6. Dewan PA, Woodward A. Torsion of the vermiform appendix. *J Pediatr Surg.*1986 Apr;21(4):379-80.
7. Glichrist BF. Torsion of the appendix. *J Pediatr Surg*. 1995 Jan;30(6):901-2.
8. Beevors EC. Torsion of the appendix. *Lancet*. 1920;1:597-58.
9. Gopal K, Kumar S, Grewal H. Torsion of the vermiform appendix. *J Pediatr Surg*. 2005 Feb;40(2):446-7.