

**The
Central African
Journal
of
Medicine**

Volvulus of the sigmoid colon in paediatric patients: Report of two cases

R O OFIAELI

SUMMARY

Two cases of volvulus of the sigmoid colon in paediatric patients are presented. The condition is rare in childhood. The diagnosis was established at laparotomy in the first case while the second case was diagnosed because of heightened awareness.

The clinical features of the disease are essentially as in adults.

INTRODUCTION

The common understanding of sigmoid volvulus is that it affects the elderly. This belief was modified recently by Sturzaker *et al*¹ who pointed out that the diagnosis may be missed in young people in Britain. However, the youngest patient in his series of nine patients was aged 19 years.

This is a report of two Nigerian children, seven and five years old with sigmoid volvulus.

Case I: A seven-year-old boy was rushed to the accident and emergency unit with a history of abdominal distention, colicky abdominal pain and nausea which started two hours earlier. He had been in good health previously.

On examination he was very restless, the abdomen was grossly distended, tense and tympanic, the bowel sounds were faint, the respiratory rate was 40/min. and the pulse 96/min. of moderate volume.

An impression of intestinal obstruction was made and he was started on intravenous normal saline and nasogastric suction.

When he was reviewed one hour later, the abdominal distention had become so gross that respiration was seriously embarrassed. Nasogastric drainage was only 20 ml of clear fluid. Whole blood was cross-matched and he was given intravenous Ampicillin 250mg and flagyl 250mg.

An exploratory laparotomy was done two hours after admission through a mid-line sub-umbilical incision. Immediately after the peritoneum was opened, sigmoid colon eviscerated. The twist was clockwise and 360 degrees.

Complete obstruction of the colon was obvious but the loop was not gangrenous. Primary resection of 18 inches segment of the twisted sigmoid colon was done and continuity restored by end-to-end anastomosis using 3/10 interrupted silk sutures in two layers.

The post-operative period was uneventful and the wound healed primarily. He was discharged 11 days after operation and has been followed up for one year without recurrence.

Case II: A five-year-old boy was first seen in the Out-patient Department in May, 1989 with a history of intermittent colicky abdominal pain and discomfort which was often associated with gross abdominal distension. Previous episodes resolved with the passage of a large quantity flatus.

On examination, the abdomen was not distended and physical signs were lacking. He was given antacids and asked to report back to hospital whenever the attack of colicky abdominal pain and swelling recurred.

Three days later, he was rushed to the emergency unit with a history of abdominal pain and distention which started three hours earlier. On examination, the abdomen was grossly distended and tympanic; the bowel sounds were exaggerated; the pulse rate was 100/min. and faint. A diagnosis of volvulus of the sigmoid colon was made and he was started on intravenous normal saline. A rectal tube was passed through a sigmoidoscope and the colon deflated with the passage of a large quantity of very offensive flatus.

A barium enema was done three days later and it demonstrated grossly redundant sigmoid colon (Figures 1a and b). Four days after the enema and after bowel preparation, his sigmoid colon was resected and continuity immediately restored by end-to-end anastomosis.

Correspondence to:

R O Ofiaeli

Department of Surgery

College of Health Sciences

Nnamdi Azikiwe University

Nnewi

Anambra State

Nigeria

Fig. 1a — Case II: Barium enema showing grossly redundant sigmoid colon



Fig 1b — Case II: Lateral view. The redundant sigmoid is thrown into folds



The wound healed primarily and he was discharged 11 days after operation. This patient has been followed up to date without recurrence.

DISCUSSION

In the first patient, volvulus of the sigmoid colon was not suspected pre-operatively and the diagnosis was established at operation. However, this heightened my awareness of this condition in children.

In the second patient the diagnosis was suspected and confirmed by sigmoidoscopy and deflation of the colon with a rectal tube. The barium enema done after deflation demonstrated a grossly redundant sigmoid colon.

It is often said that in no other intra-abdominal condition does distention of the abdomen occur so rapidly as in volvulus of the sigmoid colon. This was the classical presentation in the first patient. The

second patient initially had features of intermittent large bowel obstruction and later developed complete obstruction.

Extensive review of the literature showed that only two cases of sigmoid volvulus — infancy and childhood — had previously been documented,^{2, 4} but only the ages of the patients were mentioned (10 months and three years). Other series^{3, 1} had their youngest patients aged 12 and 19 years respectively. The occurrence of volvulus of the sigmoid colon in these two patients aged seven and five years underscores the point made by Sturzaker *et al*¹ that the disease is probably not uncommon in young patients.

The clinical features are essentially as in adults. A high degree of awareness that this condition could occur in childhood is necessary amongst practising clinicians.

ACKNOWLEDGEMENTS

My sincere gratitude goes to Professor Wilson Onuigbo of the University of Nigeria, College of Medicine, Enugu Campus, for valuable advice.

REFERENCES

1. Sturzaker H G, Lawrie R S, Joiner C L: Recurrent sigmoid volvulus in young people: A missed diagnosis, *Br Med J*, 1975; 4: 338-339.
2. Gulant S M, Grover M S, Tagore N K, Taneja M S: Volvulus of the sigmoid colon in Delhi, India, *Dis Col & Rect*, 1974; 17: 219-225.
3. Smith R B, Kettlewell M G, Gough M H: Intermittent volvulus in younger age groups, *Br J Surg*, 1977; 64: 406-409.
4. Gibney E J: Sigmoid volvulus in rural Ghana, *Br J Surg*, 1989; 76: 737.



This work is licensed under a
Creative Commons
Attribution – NonCommercial - NoDerivs 3.0 License.

To view a copy of the license please see:
<http://creativecommons.org/licenses/by-nc-nd/3.0/>

This is a download from the BLDS Digital Library on OpenDocs
<http://opendocs.ids.ac.uk/opendocs/>