Sigmoid Colon Perforation by Ingested *Sandorica*** Seed

POONSAWAT SOMBOONPANYA, M.D.*

Abstract

This retrospective descriptive study of Sigmoid colon perforation by ingested *Sandorica* seed in patients who were admitted to Prachomklao Hospital from 1996 to 2000. Nine cases were included in this study. Most cases were elderly with a mean age of 65 years (range 52-78 years). The main symptoms were abdominal pain with generalized peritonitis and severe tenderness at the suprapubic area, ileus and persistent vomiting. In all cases, the diagnosis was made at operation, with removal of the *Sandorica* seed, closure of the perforation at the rectosigmoid colon with simple suture and proximal transverse loop colostomy. Post-operative complications included two cases of wound infection.

Key word : Colonic Perforation, Foreign Bodies, *Sandorica* Seed

SOMBOONPANYA P
J Med Assoc Thai 2001; 84: 1751-1753

Although the ingestion of foreign bodies is relatively common, most of them pass through the gastrointestinal tract without complications. It is currently thought that less than 1 per cent of ingested foreign bodies will perforate the bowel[1,2], and the greatest risk is with large, sharp or pointed objects [2,3]. Larger objects are usually retained in the esophagus and stomach, which allows endoscopic diagnosis and possibly even removal. Colonic perforation by a foreign body ingested either accidentally or on purpose is rare and requires early treatment to resolve the condition.

* Department of Surgery, Prachomklao Hospital, Phetchaburi 76000, Thailand.

** Other common name : Santol, wild mangosteen; Thai name : กระท้อน

Table 1. Age and sex with sigmoid colon perforation by ingested *Sandorica* seed.

	Sex			Age (years)				
	M	F	Total	41-50	51-60	61-70	71-80	Total
No. case	7	2	9	1	1	3	4	9
%	77.78	22.22	100	11.11	11.11	33.33	44.45	100

In this study we present a series of 9 patients admitted to our department with sigmoid colon perforation by ingested *Sandorica* seed.

MATERIAL AND METHOD

This retrospective study included 9 patients with rectosigmoid perforation by ingested *Sandorica* seed, who were admitted to Prachomklao Hospital, Phetchburi durling the 5 year period from January 1996 to December 2000. These data included clinical, radiological and surgical findings, with emphasis on the nature of the foreign body, site of the perforation and type of surgical repair.

RESULTS

The 7 men (77.78%) and 2 women (22.22%) had a mean age of 65 years (range 52-78 years). (Table 1). Ingestion of a *Sandorica* seed was accidental in all cases, with the patient unaware of the occurrence. No patient had any predisposing antecedent such as a psychiatric disorder, dentures or having anti-inflammatory treatment.

The main symptom in all cases was abdominal pain, ileus and persistent vomiting, with a mean duration of 40 hours (range 12-72). There was no history of previous abdominal surgery, and defecation habits were normal. On physical examination, all cases were slightly dehydrated, the abdomen was hard and distended, with generalized severe tenderness at the suprapubic area, and bowel sounds were hypoactive or absent. Plain films of the abdomen showed genenalized ileus without free air. In all cases, the diagnosis was made at operation.

In all operations, treatment comprised of removal of the ingested *Sandorica* seed, and closure of the perforation at the rectosigmoid colon with simple suture and proximal transverse loop colostomy or exteriorization.

Post-operative complications included prolonged ileus which resolved with medical treatment (gastrointestinal compression and total parenteral nutrition for a week), and two cases of infected wound seromas. Mean follow-up after discharge from hospital was 15 months (range 4-40). At the 3 month check up in all cases, the anastomosis had healed, there was no leakage by barium enema, and closure of the colostomy was performed.

DISCUSSION

Accidental ingestion of a foreign body is more common at the extremes of life (children and elderly people), among those with mental disorders and in certain professions such as carpenters, dressmakers and upholsterers[4,5]. Voluntary ingestion of one or more foreign bodies is most common among prisoners and in people who attempt suicide.

Clinical presentation of bezoars[6-8] is varied and depends on their location in the gastrointestinal tract. Colonic bezoars[8,9] generally present with constipation. The most common sites of intestinal perforation by a foreign body are the ileocaecal and rectosigmoid regions[10,11], sites where, apart for reduction in the calibre of the intestinal lumen, there is an important change in direction in intestinal transit between a mobile portion of the mesocolon (ileum and sigmoid), and a more- or less fixed portion of the retroperitoneum (caecum and rectum).

In the present series, the diagnosis was made at operation, and all cases had perforation at the rectosigmoid colon with moderate soiling. Treatment included removal of the foreign body responsible for the perforation and re-establishment of intestinal continuity. This may require trimming of the margins of the hole before suture, and construction of a proximal colostomy. Post-operative complications were two incisional wound infections which subsided two weeks after treatment.

(Received for publication on September 4, 2001)

REFERENCES

1. Brady PG. Endoscopic removal of foreign bodies. In : Silvis S, ed. Therapeutic gastrointestinal endoscopy. New York: Igaku-Shoin, 1985: 67-93.
2. Gracia C, Frey CF, Bodai BI. Diagnosis and management of ingested foreign bodies : Ten years' experience. Ann Emerg Med 1984; 13: 30-4.
3. Callon RA Jr, Brady PG. Toothpick perforation of the sigmoid colon : An unusual case associated with Erysipelothrix rhusiophatiae septicemia. Gastrointest Endosc 1990; 36: 141-3.
4. Pinero Madrona A, Fernandez Hernandez JA, Carrasco Prats M, Riquelme Riquelme J, Parrila Paricio, P. Intestinal perforation by foreign bodies. Eur J Surg 2000; 166: 307-9.
5. Ratan SK, Grover SB. Giant rectosigmoid stone bezoar in a child. Clin Pediatr (Phila) 2000; 39: 500-2.
6. Agha FP, Nostrant TT, Fiddian Green RG. "Giant colonic bezoar" : A medication bezoar due to psyllium seed husks. Am J Gastroenterol 1984; 79: 319-21.
7. Fujikawa T, Matsusue S, Nishimura S, Takakuwa M. "Pseudo-Phytobezoar" due to seed from pickled plum resulting in perforated peritonitis. Am J Gastroenterol 1999; 94: 3373-4
8. Holloway WD, Lee SP, Nicholson GI. The composition and dissolution of phytobezoars. Arch Pathol Lab Med 1980; 104: 159-61.
9. Jones RS. Intestinal obstruction. In : Sabiston DC, ed. Textbook of Surgery, 14th ed. Philadelphia: WB Saunders, 1991: 835-6.
10. Harsanyi M, Rozsos IE, Tako C, Szporny G. Perforation of the sigmoid colon by a foreign body and its urological consequences. Br J Urol 1996; 77: 325-6.
11. Hewett PJ, Young FJ. Toothpick injuries to the gastrointesinal tract. Aust N Z J Surg 1991; 61: 35-7.

ลำไส้ใหญ่ทะลุจากเมล็ดกระท้อน

*พูลสวัสดิ์ สมบูรณ์ปัญญา, พ.บ.**

จากการศึกษาของผู้วิจัยได้ศึกษาเชิงพรรณาย้อนหลัง ในผู้ป่วยที่เข้ารับการรักษาในโรงพยาบาลพระจอมเกล้า จังหวัดเพชรบุรี ระหว่าง พ.ศ. 2539 – 2543 รวมเป็นระยะเวลา 5 ปี ด้วยเรื่องของลำไส้ใหญ่ทะลุ เนื่องจากสาเหตุของการอุดตันจากเมล็ดกระท้อน ในการศึกษาครั้งนี้ พบมีผู้ป่วย 9 รายที่เกิดลำไส้ใหญ่ทะลุ สาเหตุจากเม็ดกระท้อนอุดตัน พบในผู้ป่วยสูงอายุเฉลี่ย 65 ปี อยู่ระหว่างอายุ 52 ปี ถึง 78 ปี อาการที่มาพบมากที่สุดด้วยเรื่องปวดในช่องท้องอย่างรุนแรง ปวดมากบริเวณเหนือหัวเหน่า, ท้องอืด คลื่นไส้อาเจียน การวินิจฉัยทุกรายจะได้แน่นอนเมื่อมีการผ่าตัด และนำเอาเมล็ดกระท้อนออก เย็บปิดรูลำไส้ใหญ่ที่รั่ว และเปิดลำไส้ใหญ่ส่วนเหนือต่อบริเวณทะลุเพื่อให้อุจจาระไม่ต้องผ่านบริเวณลำไส้ที่ทะลุ พบว่ามีปัญหาแทรกซ้อนจากแผลผ่าตัดอักเสบ 2 ราย

คำสำคัญ : ลำไส้ใหญ่ทะลุ, สิ่งแปลกปลอม, เมล็ดกระท้อน

พูลสวัสดิ์ สมบูรณ์ปัญญา
จดหมายเหตุทางแพทย์ ฯ 2544; 84: 1751–1753

* กลุ่มงานศัลยกรรม, โรงพยาบาลพระจอมเกล้า, เพชรบุรี 76000