Single Magnet Ingestion – Individualizing the Algorithm

We present a case that encouraged us to revisit the management algorithm in single magnet ingestion [1]. A child had undergone a double-barrel sigmoid colostomy for anorectal malformation during neonatal period, with a plan for staged surgical repair. At four years of age he presented to the surgeon after ingestion of a single small magnet. The magnet was visible in the epigastrium on radiography. Being asymptomatic, serial radiological follow-up was advised, but the parents did not report for follow-up. Five months later, the child presented with frequent colicky abdominal pain and bloating which used to subside with passage of stools. On examination, the abdomen was soft, and stoma was extremely tight allowing only the tip of the little finger resulting in oozing of blood. Anteroposterior radiograph revealed a magnet on the left side of the abdomen. A 9.2 mm esophagogastroduodenoscope was inserted through the stoma into the proximal loop with difficulty, and a 1.5 cm magnet was visualized proximal to the stoma. Attempts to remove it with rat-tooth forceps led to repeated slipping as the stoma was narrow. A net retrieval device was used, and the magnet could be removed only with significant force that damaged the net. There was self-limited oozing from the stoma. The child became asymptomatic after removal of the foreign body.

The literature cites symptomatic retention of sharp or large blunt foreign bodies in patients with altered bowel anatomy (congenital/acquired disorder or consequent to a surgery) [2-4]. We could find only one report of a retained small blunt foreign body, attributable to a surgical alteration of anatomy [5].

The decision to conservatively follow-up a single ingested magnet in the index case was probably in accordance with a published algorithm for single magnet ingestion [1]. A narrow colostomy, even if asymptomatic, can lead to symptomatic retention of small foreign bodies. Prolonged magnet retention is undesirable as injury might result from ingestion of a second ferromagnetic object or clothing with iron accessories [1]. If prolonged passage or retention is anticipated, based on medical (motility disorders) or surgical problems (stenosed/small stoma, strictures), early gastroscopic removal of magnets may be advisable. Also, decisions on conservative follow-up are best made considering the constraints for frequent healthcare visits (geographical separation or distance). Conservative management and later trans-stomal endoscopy (with or without prior dilatation) through a stenosed stoma may invoke fibrosis and increase in stenosis [6].

Algorithms for conservative follow-up of single magnets should be revised in special situations and tailored to individual patient conditions and circumstances.

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REFERENCES

1. Hussain SZ, Bousvaros A, Gilger M, Mamula P, Gupta S, Kramer R, *et al*. Management of ingested magnets in children. J Pediatr Gastroenterol Nutr. 2012;55:239-42.
2. Macmanus JE. Perforations of the intestine by ingested foreign bodies: Report of two cases and review of the literature. Am J Surg. 1941;53:393-402.
3. Benjamin SB. Small bowel obstruction and the Garren-Edwards gastric bubble: an iatrogenic bezoar. Gastrointest Endosc. 1988;34:463-7.
4. Haiart DC. An unusual complication of stenosis of a colostomy. Postgrad Med J. 1985; 61:549-50.
5. Ng KC, Mansour E, Eguare E. Retention of an ingested small blunt foreign body. JBR-BTR. 2011;94: 339-42.
6. Husain SG, Cataldo TE. Late stomal complications. Clin Colon Rectal Surg. 2008;21:31-40.