

# MULTIPLE MAGNETIC FOREIGN BODY INGESTION: “THE ATTRACTIVE HAZARDS”



DR. MANISH KUMAR KASHYAP (ASSISTANT PROFESSOR)

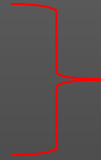
DR. PRANAV JADHAV (HOD)

DEPARTMENT OF PAEDIATRIC SURGERY

DR. D.Y. PATIL MEDICAL COLLEGE, PUNE

2 YEARS GIRL

- ❖ PAIN ABDOMEN
- ❖ VOMITING



SINCE 3-4 DAYS

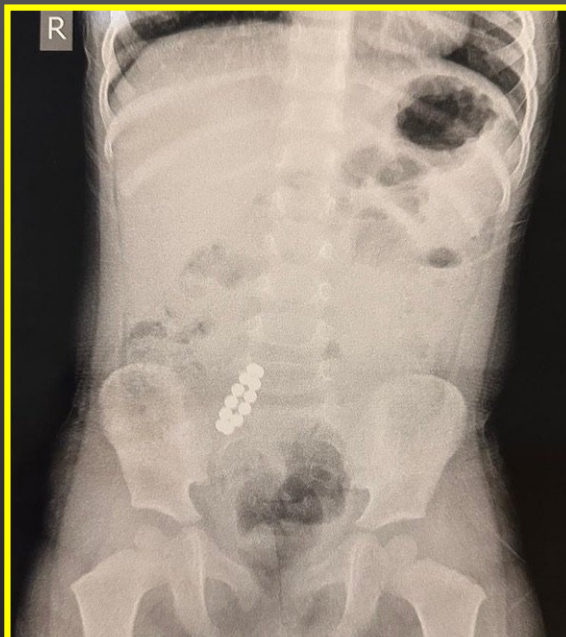
X-RAY DONE OUTSIDE- REFERRED TO US I/V/O FOREIGN BODY INGESTION  
( PARENTS NOT AWARE )

VITALS STABLE

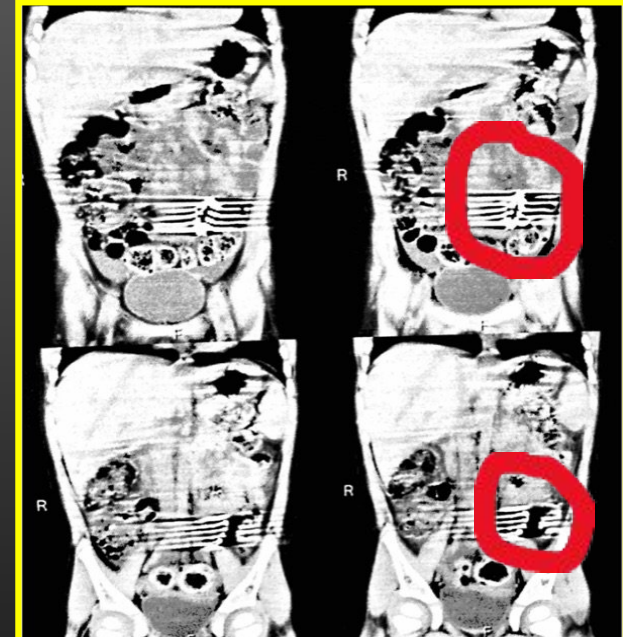
O/E - ABDOMEN- COMPLETELY SOFT AND NON TENDER

SINCE THE X-RAY SHOWED NO SIGNS OF OBSTRUCTION AND PT. WAS  
STABLE, WAITED FOR 2-3 DAYS TO PASS FOREIGN BODY

# INVESTIGATIONS



Serial x-ray



CT scan

USG and Ct scan- s/o foreign body in ileum

Adult gastroenterology opinion taken by pediatrician but patient was referred to us for further management

# PLAN

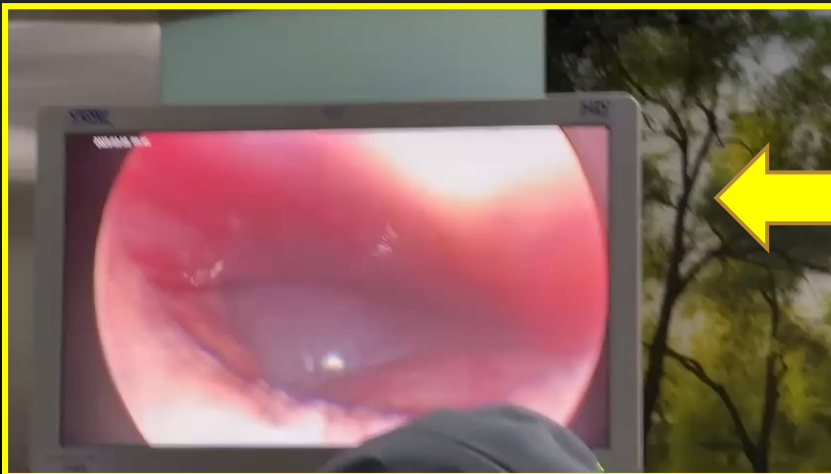
LOWER GI SCOPY WITH ATTEMPT OF FB REMOVAL -

PAEDIATRIC GASTROENTEROLOGIST



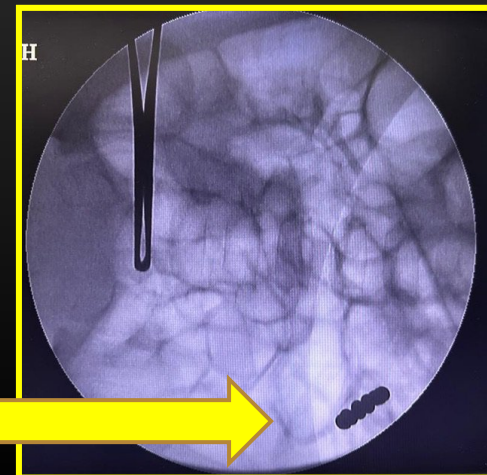
SOS LAPAROSCOPY SOS LAPAROTOMY

(C-ARM GUIDANCE IF NEEDED)



LOWER G.I SCOPY

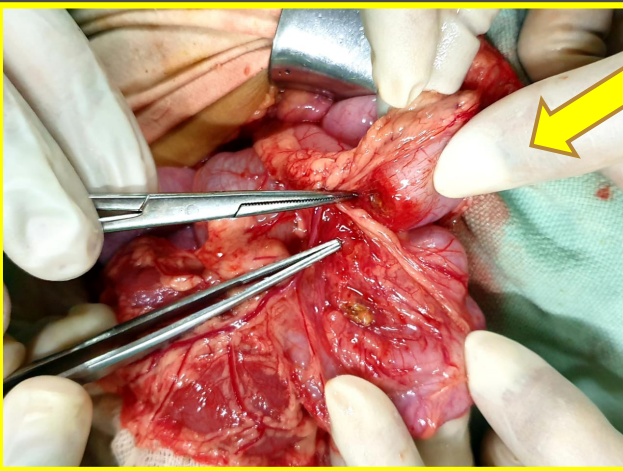
FOREIGN BODY



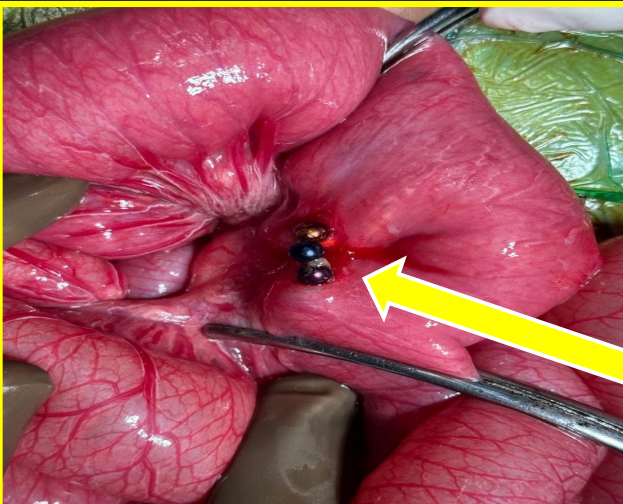


# INTRA-OPERATIVE FINDINGS

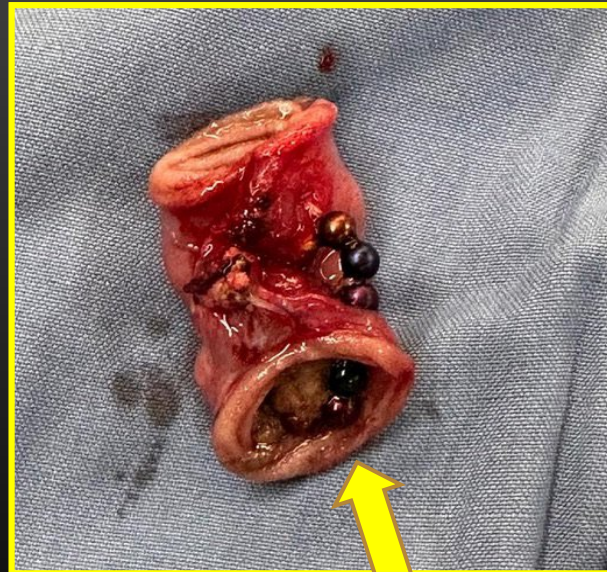
bowel walk - mid jejunal perforation!!!  
resection anastomosis of jejunal segment



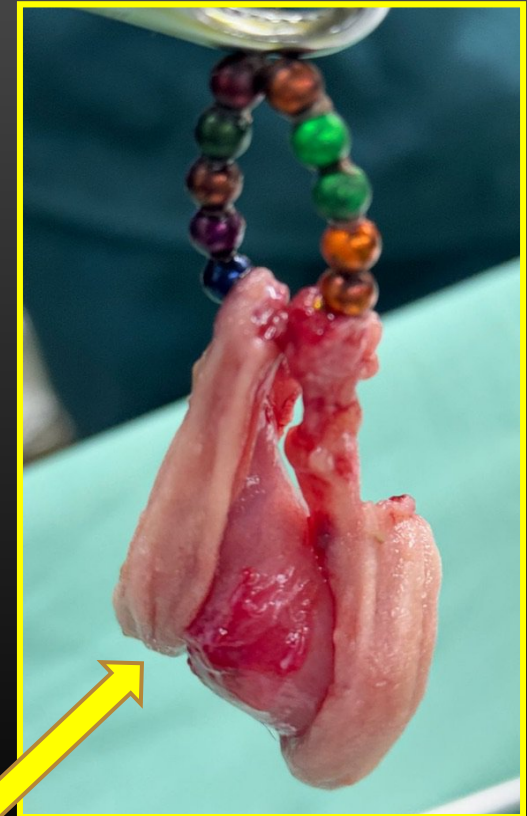
Bowel walk



Perforated site




Excised specimen



# Post-op and recovery - uneventful



	<b>ANANDI SIDDHANT WADMARE</b> Flat A 1106 Pushpak Soc Dudulgaon Alandi,	<b>Ref.:Dr.PRANAV JADHAV</b> Sample Collected At: PRIVATE WARD Dr. D. Y. Patil Medical College, Hospital & Research Centre, Sant Tukaram Nagar, Pimpri Colony, Pune,	<b>SID: 324607933</b> Collection Date 18-03-2025 02:18 PM Registration Date 18-03-2025 03:19 PM Report Date 22-03-2025 09:38 AM
	PID: 3835678 PRN: PRN000002145828 IPO.P:PRNIP250018 Age:2.03 Years Sex:FEMALE		

HISTOPATHOLOGY REPORT	
HPE no. :	B/1505/25
Clinical details :	C/o pain in abdomen since 4 days.
Nature of specimen	HPE of excised specimen of jejunum with foreign body.
Gross Examination :	Received an already cut open segment of intestine measuring 3.5 cm in length with two donuts measuring 1.2 x 1 x 1 cm and 1.1 x 1 x 1 cm. Externally - Adherent beads of magnet (foreign body identified) at one end penetrating into the mucosa. Externally, there is a congested area identified measuring 0.8 x 0.3 cm. near the foreign Body. It is 1 cm away from one end and 2.5 cm from other end. Mucosa appears unremarkable. A, B - received separately (margin). C1 - from farther end. C2 - Perforated area. C3, C4 - Perforated area C5, C6 - Congested area with normal adjacent mucosa.
Microscopy :	Multiple sections from the perforated area and other adjacent areas of the jejunum show foci of ulcerated mucosa with necrosis and mixed inflammation by lymphocytes, neutrophils and occasional macrophages. Subepithelial tissue shows edema with congested blood vessels. Focus of foreign body deposits noted. No evidence of granuloma or malignancy with section studied.
Diagnosis :-	Acute necrotizing and perforating jejunitis secondary to foreign body.

Note :-  
If Specimen preserved, it will be retained in the laboratory for 12 weeks from the date of receipt.

**Acute necrotizing and perforating jejunitis secondary to foreign body.**

# MULTIPLE MAGNETIC FOREIGN BODIES INGESTION

- SINGLE MAGNET – MAY BE UNEVENTFUL
- MULTIPLE MAGNETS/ MAGNET + SECOND METALLIC FB – PROBLEMATIC

ONCE FOREIGN BODIES TRAVEL BEYOND THE OESOPHAGUS, MOST  
TRAVERSE THE SMALL INTESTINE WITHOUT COMPLICATIONS



# REVIEW OF LITERATURE

## COMPLICATIONS REPORTED DUE TO MULTIPLE MAGNETS INGESTION IN PAEDIATRIC AGE GROUP ☾

- MULTIPLE PERFORATIONS- DUE TO PRESSURE NECROSIS ON EACH BOWEL WALL CAUSED BY THE MAGNETIC ATTRACTION
- SMALL BOWEL OBSTRUCTION
- SMALL BOWEL FISTULA
- VOLVULUS



# MANAGEMENT

- 1) NON-OPERATIVE MANAGEMENT - SERIAL XRAYS +/- BOWEL REGIME, ADMISSION & VERY CLOSE MONITORING  
(ONLY IN ASYMPTOMATIC PATIENTS)

ENDOSCOPIC/LAPAROSCOPIC REMOVAL MAY BE INDICATED IN CASE OF NON-PROGRESSION AFTER 48 HOURS

- 2) ENDOSCOPIC REMOVAL +/- ABDOMINAL SURGERY

- 3) LAPAROSCOPY

- 4) LAPAROTOMY



## Multiple magnetic foreign bodies causing complex intestinal fistula

Gayatri S. Munghate <sup>a</sup>, A.S. Reddy <sup>a</sup>, Minnie Bodhanwala <sup>b</sup>

<sup>a</sup> Department of Paediatric Surgery, Bai Jerbai Wadia Hospital for Children, Mumbai, 400012, India

<sup>b</sup> CEO, Bai Jerbai Wadia Hospital for Children, Mumbai, 400012, India

<sup>c</sup> Paediatric Surgery, Bai Jerbai Wadia Hospital for children, Acharya Dhone Marg, Parel, Mumbai, 400012, India



## Double magnets causing double perforations – a case report

### Abstract

Magnets are unusual gastrointestinal foreign bodies. Ingestion of multiple magnets may lead to serious complications including bowel perforation. We are presenting the case of an 11 year old girl who ingested 2 singing magnets. The patient presented with a history of pain abdomen and bilious vomiting and constipation of one day duration, 20 days after ingestion of the magnets. On examination there was distension of abdomen and severe tenderness all over the abdomen along with rigidity. Abdominal radiograph showed the presence of foreign bodies in the abdomen. In view of features of peritonitis the patient was taken up for an exploratory laparotomy. Intraoperatively two perforations were found, one in the jejunum and the other in the ileum. The perforations were caused due to the pressure

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Received: October 12, 2020 | Published: November 06, 2020

Two more cases  
1. In KEM, MUMBAI  
2. DR. APOORVA MAKAN

### Case Report

**Perils in the playpen: Duodenojejunal fistula in a child following ingestion of two toy magnets**

Keywords :

Sundeep Kisku, Tarun John, Nijagal Mutt

Dept of Pediatric Surgery

Christian Medical College, Vellore

TN 632004. India.

**Corresponding Author:** Dr Sundeep Kisku

Email: skisku@yahoo.com

DOI: <http://dx.doi.org/10.7869/tg.264>

# jiaps

Journal of Indian Association of Pediatric Surgeons

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Journal

### CASE REPORT

Year : 2013 | Volume : 18 | Issue : 4 | Page : 160-161

## Multiple magnet ingestion: An uncommon cause of peritonitis

**Shraddha Verma, Sunil Shinde, Chhabi Ranu Gupta**

Department of Pediatric Surgery, Chacha Nehru Bal Chikitsalaya, New Delhi, India

Date of Web Publication

8-Nov-2013

**Correspondence Address:**

Shraddha Verma

Department of Pediatric Surgery, 5th Floor, Chacha Nehru Bal Chikitsalaya, New Delhi India

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- Magnetic balls for kids are 100% Non-Toxic Material: Magic toys are made with premium quality metal Durable, light weight, Non-oxidative. With magic properties, can be arbitrarily combined with the ever-changing geometric patterns, entertainment, creativity.
- Magnet ball are Collection of fresh, creative, inspiration, strange, intellectual, interesting,



**Stress to paediatrician and paediatric surgeon!!!**

- Balls for Kids: Collection of fresh, creative, inspiration, strange, intellectual, interesting, decompression in one. A product that can be constructed and engineer limitless shapes and structures. Can be shaped as necklaces, bracelets, or any type of jewelry.

**NO HAZARD WARNING FOR CHILDREN!!!!**

# TAKE HOME MESSAGE

- MAGNETIC FB – MAY BE INNOCENT IN SOLITUDE, BUT HAZARDOUS IN GROUPS!!
- HIGH INDEX OF SUSPICION AND EARLY INTERVENTION IN CASE OF MULTIPLE MAGNETIC FB INGESTION
- RAISING AWARENESS AMONG PARENTS – NEED OF THE HOUR
- MANUFACTURERS HAVE TO PUT WARNING LABELS ON THESE TOYS EMPHASIZING THE LIFE THREATENING HAZARDOUS COMPLICATIONS IN CASE OF ACCIDENTAL INGESTION

**PREVENTION IS BETTER THAN CURE!**

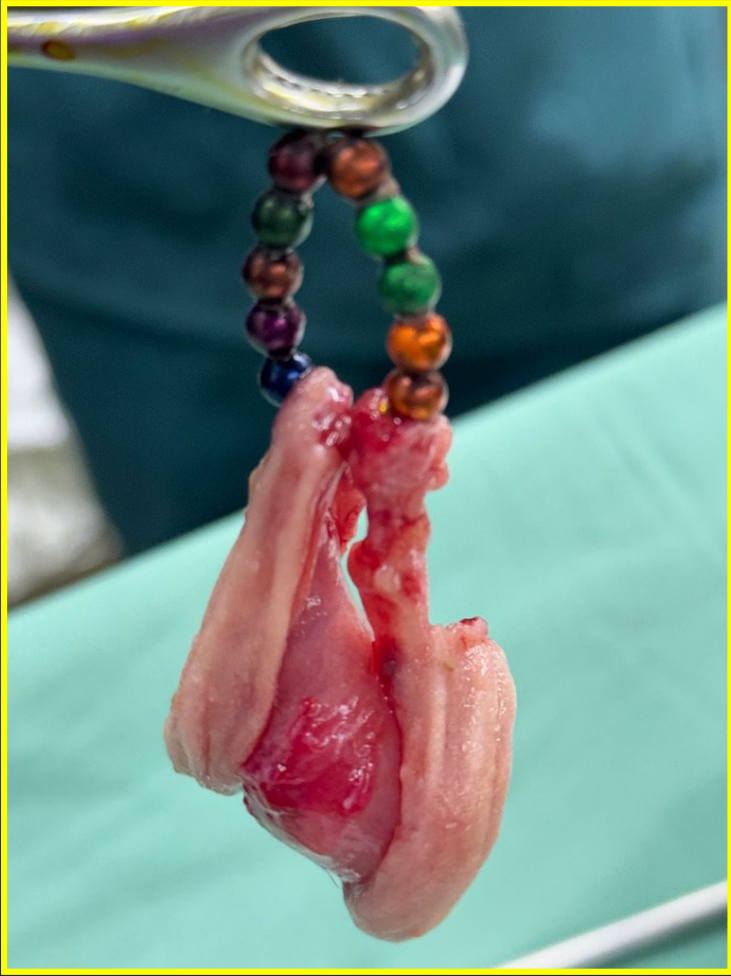


# HAZARDOUS TOYS



- SET INCLUDES**
- 13 X Magnetic Tube
  - 2 X Small Size Metal Ball
  - 8 X Medium Size Metal Ball
  - 2 X Large Size Metal Ball
  - 2 X Pen Cap
  - 2 X Touch Screen Head
  - 1 X Pen Clip
  - 1 X Pen Tip
  - 3 X Black Refill





THANK YOU



Special Thanks  
Dr. Shailaja mane and Paediatric  
Department  
Dr. Sonal and Paediatric Anaesthesia  
Dr. Vishnu Biradar, Gastroenterologist