



## Over One Kilogram Gravel Ingestion in a Six Year Old Child Managed Conservatively: A Case Report

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### Abstract

The ingestion of foreign bodies remains a common occurrence in children. We are reporting a case of a six year old girl presented to us with complaints of pain abdomen for one day. On digital rectal examination multiple gravel particles mixed with stools were felt which were removed. The total number of gravel particles excreted were more than 200, weighing around 1300 grams with largest stone passed being 2.7 cm × 1.8 cm in size. The child was managed conservatively with daily stool examination and serial abdominal x-rays.

**Keywords:** 1.3 gm gravel ingestion; Managed conservatively

### Introduction

The ingestion of foreign bodies remains a common occurrence in children. Most ingested foreign bodies pass spontaneously, although up to 1% will result in intestinal perforation [1]. We report a case of six year old child who ingested more than 200 pieces of gravel.

### Case Presentation

A six year old girl presented to us with complaints of pain abdomen for one day. Examination was largely unremarkable with mild tenderness in lower abdomen. On digital rectal examination multiple gravel particles mixed with stools were felt which were removed.

Keeping in view the possibility of more gravel particles leading to intestinal trauma or impending obstruction, child was kept nil orally. And put on parenteral fluids, antibiotics, analgesics and with nasogastric tube insertion. X-Ray abdomen showed multiple radio-opaque shadows scattered throughout the large gut extending from caecum to sigmoid colon and rectum was also studded with similar shadows.

The child was managed conservatively with daily stool examination and serial abdominal x-rays. The child kept passing gravels in stools, which progressively decreased in number and by the sixth day the stools were free from gravel particles. The serial abdominal x-rays confirmed the clearance of the gut from the gravel. The total numbers of gravel particles excreted were

more than 200, weighing around 1300 grams with largest stone passed being 2.7 cm × 1.8 cm in size. The child was discharged in a satisfactory condition and throughout the stay in the hospital the child remained asymptomatic.

### Discussion

Young children will attempt to swallow wide variety of objects but coins, seeds, pebbles and part of toys are particularly common. It may be an event witnessed by parents. It usually occurs accidentally but can result from deliberate ingestion. It is not uncommon to see patients with recurrent foreign body (FB) ingestion especially mentally challenged children and patients with psychiatric disorders. Children are commonly brought to medical attention after their caregivers witness the child swallowing a foreign body or suspect the ingestion due to the disappearance of an item. Most children are asymptomatic at the time of presentation. Common symptoms include drooling, gagging, dysphagia, odynophagia, decreased appetite, food refusal, fever, nausea, vomiting, hematemesis, rectal bleeding, neck pain, chest pain, abdominal pain, halitosis, cough, stridor, wheezing, and respiratory distress. The majority of ingested FBs that reach the stomach pass uneventfully through the gastrointestinal tract and the overall risk of perforation is 1% [2].

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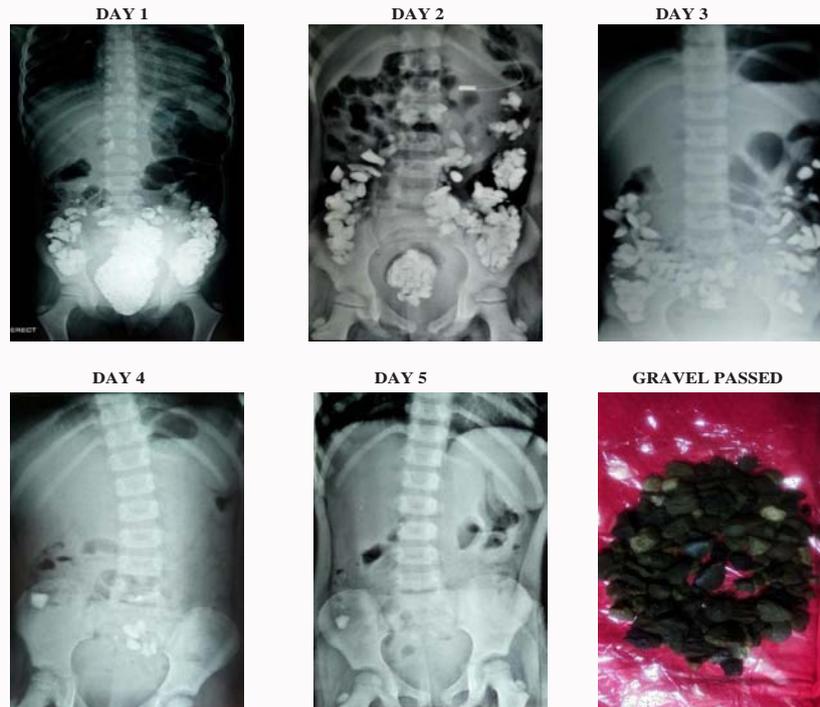
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**Figure 1:** Serial x-rays abdomen day 1 to day 5 showing evacuation of bowel.

Endoscopic removal is needed in 10% to 20% cases and in about 1% of the cases surgical intervention is required, depending upon the nature, shape, size, number and location of the FBs [2,3]. For most of foreign bodies, the treatment is conservative, allowing safe passage of these objects through the intestinal tract. A plain radiograph of chest and abdomen in case of radiopaque foreign body is quite useful in guiding the transit of foreign body in GIT.

## Conclusion

In conclusion, ingestion of foreign bodies rarely causes perforation of bowel and most of these will pass spontaneously or it may migrate silently to other parts of the body. Surgical intervention should be offered to patient only after trial of conservative management and if the foreign body causes any symptoms of gastrointestinal obstruction or perforation.

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