

Chronic Constipation Revealing Geophagia: A Case Report

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ABSTRACT: Geophagia is a frequent cause of chronic constipation. It is often associated with iron-deficiency anemia, which may be the cause. We describe the case of a 4 year-old suffering from a chronic constipation. In which the radiographic examination revealed the presence of sand like stools and thus making an orientation for geophagia. This article come as a reminder of the utility of radiographic examination as a first line abdominal exploration in case of abdominal symptoms.

KEYWORDS: Anemia, Constipation, Development Delay, Geophagia, Radiography

INTRODUCTION

Geophagia is a frequent cause of chronic constipation. Clinically, it is an elusive diagnosis because only a minority of patients give the proper history, and on radiograph the increased radio densities of the fecal material may be overlooked or confused with residual contrast media. We report the case of chronic constipation associated with anemia as a result of geophagia in which the presentation was overlooked.

CASE REPORT

A 4-year-old with a history of developmental delay presented to the emergency department with a history of chronic constipation and recurrent occlusive episodes. There was no history Of nausea or vomiting. Examination revealed a mentally Slow patient. Vital signs on admission were temperature of 37.9 C and pulse of 90. Physical examination of the abdomen revealed a left lower quadrant tender to even gentle percussion; bowel sounds were present. Rectal and pelvic examinations could not be obtained because the patient was uncooperative. At admission, laboratory studies showed an hemoglobin of 9.0 g/dL. A clinical diagnosis of chronic constipation associated with anemia was made, and a contrast enema was performed for exploration.

The radiographs showed shadows of high density in a distended recto sigmoid region; other opaque densities were scattered throughout the colon (Figure 1). These findings were thought to be attributable to retained barium from a possible previous gastrointestinal study. But the radiologist raised the probability that the opaque colonic changes were secondary to ingestion of dirt . A clinical diagnosis of sand colic was suspected and confirmed, under brief anesthesia, with mechanical removal of rectal contents. Examination of the feces disclosed large quantities of sand like material mixed with stools.



Figure 1: AP et oblique views radiographs : scattered opaque densities across the recto colic segment as well as an important colic distension.



DISCUSSION

Geophagia is a disorder involving repeated ingestion of inedible substances such as charcoal, clay, or earth. It is more prevalent in the lower socioeconomic classes, perhaps because of poor nutrition. This disorder is frequently seen in retarded children. The clinical diagnosis of geophagia can be very difficult. The patient often will deny the habit and may persist in reluctance to discuss it. A radiograph of the abdomen will reveal unusual radiopaque contents within the colon. The radiographic appearance, is seen in large, coarse particles mixed with stools; in others, the dirt is very finely divided and evenly mixed with feces. Stools may be spread along the lumen of the entire colon in a column. The largest collection of unusually radiopaque stools is usually seen in the rectosigmoid region in psychiatric patients. Radiographs usually help distinguish the condition from other causes of abdominal pain. As in other forms of fecal impaction, repeated rectal irrigation with warm saline can be used as first therapeutic measures. In high impaction, oil lubrication with contrast material enemas and active abdominal massage can be used. A firm rectal mass or fecaloma may be carefully broken up digitally. In some instances, mechanical removal of the impaction may require anesthesia; this should be followed by administration of water enemas until successful emptying of the bowel. After this phase of acute treatment, measures must be directed to correct the underlying sources leading to geophagia. As there may be an association with iron deficiency as well as coeliac disease. The habit may be difficult to break and requires careful, long-term supervision.

REFERENCES

1. S H Korman, Pica as a presenting symptom in childhood celiac disease, *The American Journal of Clinical Nutrition*, Volume 51, Issue 2, February 1990, Pages 139–141, <https://doi.org/10.1093/ajcn/51.2.139>
2. Vessal, K, Ronaghy, H A, Zarabi : M, Radiological changes in pica *The American Journal of Clinical Nutrition*. Am J Clin Nutr 1975.10.1093/ajcn/28.10.1095.28.10.1095.0002-9165
3. Alexander WJ, Kadish JA, Dunbar JS: Ingested foreign bodies in children. *Progr Pediatr Radiol* 1969~2:256-285.
4. Millican FS, Laurie S: In *The Child in His Family*. New York, John Wiley and Sons, 1970.
5. Clayton RS, Goodman PH: The roentgenographic diagnosis of geophagia {dirt eating}. *Am J Roentgenol* 1955;73:203-207.
6. Gardner JE, Tevetogulu F: The roentgenographic diagnosis of geophagia {dirt eating} in children. *J Pediatr* 1957;51:667. Brown, L. D., Hua, H., and Gao, C. 2003. A widget framework for augmented interaction in SCAPE.
7. Sergio Ginaldi, Geophagia: An uncommon cause of acute abdomen, *Annals of Emergency Medicine*, Volume 17, Issue 9, 1988, Pages 979-981, ISSN 0196-0644, [https://doi.org/10.1016/S0196-0644\(88\)80683-8](https://doi.org/10.1016/S0196-0644(88)80683-8).

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