

Extensive Colonic Lithobezoar in an HIV Positive Rwandan Child: a Case Report

AM Tabari*, MB Armiya'u**, F Lambert***, S Van Bastelaere+, M Mukhtar-Yola**

Summary

Tabari AM, Armiya'u MB, Lambert F, Van Bastelaere S, Khtar-Yola M. Extensive Colonic Lithobezoar in an HIV Positive Rwandan Child: a Case Report *Nigerian Journal of Paediatrics* 2005; 32: 87. We present a 10-year-old Rwandan child with clinical features of bowel obstruction thought to be secondary to faecal impaction. Plain abdominal radiograph and subsequent simple water enema confirmed it to be an extensive colonic lithobezoar. The patient was also incidentally found to be HIV positive. The association of the latter with lithobezoar is thus interesting, as most previous authors have documented different manifestations of HIV/AIDS in relation to virtually all systems in the human body, whereas there are only few reports on the occurrence of bezoars in HIV. Other interesting findings in this case include the relation of lithobezoar with intestinal parasitic disease, its extensive nature and its occurrence in the colon rather than the usual gastric location. Habitual ingestion of soil or dirt in children deserves to be further investigated because of its associated multiple complications.

Introduction

A bezoar is an accumulation of exogenous matter in the stomach or intestine.¹ The exact origin of the term appears to be questionable and is probably lost in antiquity. However, its derivation has been attributed by most writers to the Arabian word "Badzehr" or the Persian word "Padzahr" both of which connote counter poison or antidote.² On the other hand, pica is an eating disorder involving repeated or chronic ingestion of non-nutritive substances, which may include earth, charcoal, clay, paint or wool. Bezoars are of different types: a trichobezoar consists of hair, phytobezoar contains fibres, seeds and skins of vegetables,

trichophytobezoar, a combination of both, while lithobezoar consists of mud and stones and lactobezoar of milk curds.^{1,3} Of these, trichobezoars are the commonest and are mostly gastric.¹ Patients with bezoars are usually under enormous stress and often have psychological or even psychiatric manifestations. Mental retardation and lack of parental nurturing, both psychological and nutritional, are known predisposing factors for pica.

Gastric bezoar is not an unfamiliar problem, sometimes presenting to the physician or surgeon with abdominal pain, anorexia and halitosis or with features of gastric outlet or partial intestinal obstruction such as vomiting and abdominal distension.⁴ Recently, two groups of investigators^{5,6} reported cases of colonic lithobezoar secondary to geophagia. Reports concerning the occurrence of bezoars in HIV infection are however, scarce.⁷ In this communication, we present a case of extensive colonic lithobezoar in a patient of central African origin who was also HIV positive.

Case History

A 10-year old Rwandese girl presented to the outpatient clinic of the Kigali University Hospital, Rwanda with a history of anorexia, constipation (hard stool passed with difficulty), abdominal pain and distension for three months. She was the second child of a monogamous family from a low socioeconomic class. Her father died two years earlier from a wasting disease and the single unemployed mother was the sole caregiver.

Aminu Kano Teaching Hospital, Kano

Department of Radiology

* Consultant Radiologist

Department of Paediatrics

** Consultant Paediatrician

Central Kigali University Hospital, Kigali, Rwanda

Department of Radiology

** Consultant Radiologist

Department of Medicine

***Professor

Department of Surgery

+ Consultant Surgeon

Correspondence: Dr A.M Tabari.

E-mail : amustabari@yahoo.com

On examination, she was asthenic with a weight of 25kg (75 percent of expected) and a height of 135cm. She had generalized lymphadenopathy. Abdominal examination revealed a moderately distended abdomen that was tympanic to percussion with vague tenderness over the left iliac fossa. There was a palpable mass in the left iliac region which was assumed to be impacted faeces. Bowel sounds were hypoactive. Rectal examination revealed a normal anal sphincter and a bulky rectum; the gloved finger was stained with faeces. Other systems including behavioural assessment were essentially normal.

Laboratory investigation showed anaemia of 8g/dl, thrombocytopenia of $75 \times 10^9/L$, total white blood cell count of $5.7 \times 10^9/L$, with the lymphocytes count being $2.7 \times 10^9/L$ and ESR of 95mm/hr. Both the girl and her mother were screened for HIV because of the history of a wasting disease in the late father. They were both found to be sero-positive to HIV antibodies and the girl's CD4 count was $253/mm^3$. Further enquiry from the patient revealed a history of habitual ingestion of soil and stones. Plain abdominal x-ray showed multiple radiopaque shadows in the region of the colon and rectum (Fig. 1). Absence of recent barium studies was confirmed.

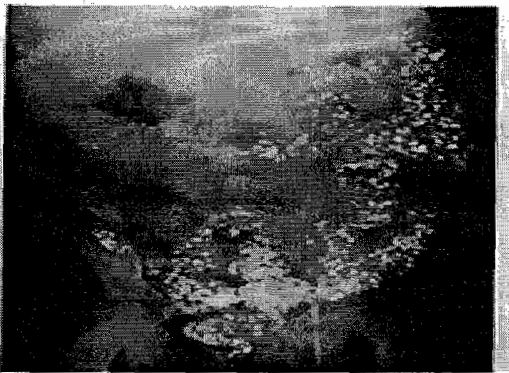


Fig 1: Plain abdominal radiograph, showing extensive radiopaque densities in the region of the colon.



Fig 2: Plain abdominal radiograph from Fig 1 above, taken shortly after water enema and defaecation, showing significant reduction of the previously noted opacities.

A lithobezoar was thus suggested radiographically. A tap water enema was administered to the patient and within an hour, she had a bowel motion with defaecation of multiple stone particles and faecal matter into a bed pan. At the end of defaecation, the abdominal distension improved significantly. A repeat plain abdominal radiograph post defaecation showed significant clearance of the previously noted presumed colonic opacities (Fig. 2). Likewise, the entire content of the bed pan was x-rayed (Fig. 3). Rectoscopy done on the same day also showed no abnormality. Stool evaluation for ova and parasites yielded *Ascaris lumbricoides*.

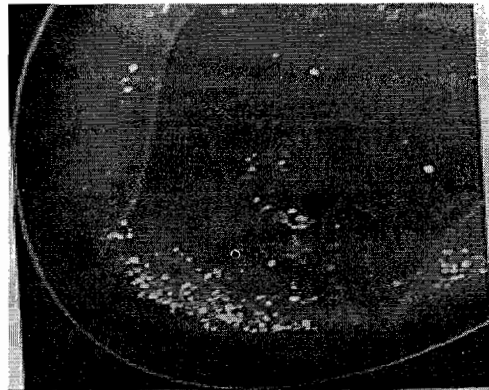


Fig 3: X-ray of the evacuated contents of the colon

Discussion

The incidence of geophagia in Africa is very high. Studies in Kenya have reported 73 to 77 percent of school children eating soil daily.^{8,9} The HIV related bezoar reported by Hutter and colleagues⁷ was claimed to be secondary to antiretroviral drug therapy, whereas in our case, because the discovery of HIV infection was incidental, no history of antiretroviral therapy was available. The occurrence of lithobezoar in a patient with HIV is thus an interesting co-incidence. No direct causal relationship could be established. However, factors such as stress, family disorganization, low socioeconomic status and poverty reported elsewhere as risk factors for geophagia^{1,6} might be contributory in our case.

The clinical features in our case also suggested colonic obstruction in a young child which significantly improved following a tap water enema. A major reduction in the number of the radiopacities occurred, suggesting that the opacities themselves might be responsible in the genesis of the obstruction, particularly as the particles were inside the colonic lumen and not in the intestinal wall or other abdominal tissues; this was confirmed by both the repeat abdominal x-ray and the subsequent rectoscopy.

Most bezoars occur in the stomach and depending on their size and extent, they could either be removed endoscopically or surgically at laparotomy.

Laparoscopic extraction is now becoming a fashionable method of treatment in large bezoars.¹⁰ The use of cathartics is also fraught with danger as a co-existing organic bowel lesion might be present, as once reported by some workers.¹¹ The localization of bezoar to the colon in our case allows simple water enema to be administered with eventual successful evacuation of the foreign bodies and subsidence of symptoms. This therefore is another method of managing bezoars.

Ascaris lumbricoides most often affects those living in the tropics, typical of the environment of our patient. The World Health Organization (WHO) has estimated that there were 1.38 billion people infected with ascaris.¹² Man acquires the disease by ingesting food, water or soil contaminated with embryonated eggs. Bearing in mind its life cycle from the eggs in the soil passed in the faeces, to the stomach, blood stream, lung and eventually the adult form in the intestine, children with habitual ingestion of soil are more prone to infection,¹³ as demonstrated in the case above. Previous workers in the tropics have found significant correlation between geophagia and ascaris infestation.^{9,14} Thus, there is a need for screening of all children with geophagia for possible associated soil transmitted parasitic infestation in order to avoid recurrent infection. The reverse also applies to exclude the presence of underlying geophagia, especially in children found with one of the soil transmitted intestinal parasites.

Colonic lithobezoar once suspected and confirmed could be easily managed with simple water enema. It also deserves to be investigated further because of its possible association with multiple and interesting incidental complications.

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