

## Letter to the editor

# Pica - a barium enema look-alike

A 15-month-old baby boy consumed a substantial amount of seasand while playing at the beach. Twelve hours later he presented with diarrhoea and vomiting and was referred for an abdominal x-ray.

The supine abdominal radiograph (Figure 1) demonstrated partial opacification of the

small bowel, and almost complete opacification of the large bowel so that the appearance resembled that of a barium enema film. A hemivertebra at L<sub>4</sub> level, with a scoliosis convex to the left side, was also identified.

Geophagia [the habit of eating clay, (geo) or dirt]<sup>1</sup> is also known as pica (the Latin word for magpie, an avian scavenger)<sup>2</sup> and describes the phenomenon of the ingestion of

non-food substances such as clay, plaster and paint and, in this case report, of seasand. Such dietary habits have

been described since antiquity and persist in many primitive societies during pregnancy and lactation.<sup>2</sup>

In the paediatric population it occurs mainly during the second year when the toddler starts getting around, and it usually does not last beyond age four or five. A variety of evidence has associated pica with nutritional deficiency, especially of iron, zinc and calcium. Pica is often seen to some degree in developmentally disabled children who are institutionalized. When the ingested material contains lead or other toxic material, detrimental or lethal consequences may ensue.

The appearance in the case reported is unusual, in that a large amount of seasand was ingested, simulating the features of a barium enema study, and also because this was not the more usual white sand, but a dark seasand (almost black) containing large amounts of iron and other elements. The hemivertebra at L<sub>4</sub> level is due for further investigation and an orthopaedic opinion is to be sought.

## References

1. Silverman FN, Kuhn JP. *Essentials of Caffey's Pediatric X-ray Diagnosis*. Year book Medical Publishers, Chicago 1990; 633.
2. Levine MD, Carey WB, Crocker AC, Gross RT. *Developmental behavioural pediatrics*. W.B. Saunders, Philadelphia, 1983; 428, 536.

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Figure 1: Supine abdominal radiograph demonstrates column of radiopaque material filling large bowel (and to a lesser degree small bowel) due to ingestion of dark seasand twelve hours earlier, and not the result of a barium enema. In addition to pica, note hemivertebra at L<sub>4</sub> level with scoliosis convex to the left side.