

A strange type of Pica

*Marwan M. Al-Sharbaty¹, Ziad A. J. Zaidan¹, Ala'Adin Al-Hussaini¹, Khalid Al-Khalili²

حالة وحم غريبة

مروان محمد الشر بنبي، زياد عبد الجبار زيدان، علاء الدين الحسيني و خالد الخليلي

المستخلص: الوحم عبارة عن أكل مواد غير مغذية مثل الطين و الرمل و الصيغ...الخ، وهو اضطراب سلوكي شائع عند الأطفال و الحوامل و المصابين بالتخلف العقلي. قد يؤدي الوحم إلى اختلاطات جسدية شديدة. وحم الإسفنج (وهو أكل حشوة الأثاث) يعتبر حالة نادرة. نعرض هنا حالة طفلة عما نية عمرها خمس سنوات كانت تعاني من وحم الإسفنج منذ كان عمرها سنتين. أصبحت تشكو من آلام في البطن مؤخرًا. بينت الفحوص أن ذكاء الطفلة طبيعي و لكنها تعاني من فقر الدم بعوز الحديد و ارتفاع خمائر الكبد. لا يوجد دليل على إصابة الطفلة باضطراب الوسواس القهري. النتائج السريرية و المختبرية أثبتت عودة الأمور إلى طبيعتها بعد بضعه أسابيع من العلاج بالحديد عن طريق الفم، حيث تحسنت الشهية و زاد الوزن. لم تحصل انتكاسة بعد متابعة استغرقت أكثر من سنتين. الوعي ضروري من أجل تشخيص و علاج الوحم بصورة مبكرة لتلافي الاختلاطات المحتملة.

ABSTRACT. Pica, where the patient eats non-food items such as mud, clay, varnish etc., is a common behavioural problem seen in children, pregnant women and the mentally retarded. However sponge pica is a very rare variation. We report a case of a 5-year-old Omani girl, who presented with sponge pica since the age of two years, with recent abdominal pain. Investigations showed anaemia, elevated liver enzymes and normal intelligence. There was no evidence of obsessive-compulsive disorder. Both clinical and laboratory findings showed complete recovery after a few weeks of oral iron therapy. Her appetite improved, and she started to gain weight. No recurrence was observed when followed up after two years. Awareness is necessary to detect and treat pica as early as possible to prevent its complications.

Keywords: pica, anemia, sponge pica, abdominal pain, Oman.

THE CASE

PICA IS THE PERSISTENT, CULTURALLY AND developmentally inappropriate ingestion of non-nutritive substances,¹ which is common in small children, the mentally retarded, and in pregnant women.² In spite of being common, pica is infrequently diagnosed.^{2,3} The risk for accidental poisoning is significant.^{2,4} Pica can also cause abdominal pain, intestinal obstruction, perforation, worm infestations and secondary anaemia. The commonly ingested non-food material constitute soil, clay, paper, paint, coins, strings, rags, hair, faeces, vomitus, leaves, worms and cloth.^{2,5} Children are rarely brought for psychiatric treatment for the isolated problem of pica. Ten to twenty per cent of children in the USA are reported to exhibit pica at some point in their lives, while up to 50–70% of children living in inner cities, particularly those of low socio-economic classes, display pica-like behaviour between the ages of 1–6 years. Different causes are claimed to predispose one to pica, such as iron deficiency anaemia⁶ and obsessive-compulsive disorder.⁷

A 5-year-old Omani girl from a middle-class family presented with eating sponge since the age of two years. She started to suffer from abdominal pain and nausea, without vomiting. She extracted and ate sponge from furniture when others were sleeping or busy, and washed down large chunks of sponge by drinking water. Nothing in her history suggested compulsive behaviour, anxiety or depression. Her weight was 15.6 Kg (<10th percentile).

This child had been born of non-consanguineous parents, as the fourth among five children. She had been the product of normal gestation and delivery, weighed 3 kg at birth and had been breastfed for two years. The postnatal period had been uneventful, and her development was within normal limits. She used to sleep late and wake up early, without having day naps. She was a sociable child, mixing and playing with other children without difficulty, and tended to prefer children older than herself. There was no history of pica or other psychiatric disorders among her family or relatives.

¹Department of Behavioural Medicine, College of Medicine & Health Sciences, Sultan Qaboos University, P O Box 35, ²Department of Behavioural Medicine, Sultan Qaboos University Hospital, P O Box 38, Al Khod 123, Sultanate of Oman.

*To whom correspondence should be addressed. Email: marwan@squ.edu.om

During the consultation, she came across as smiling, yet shy and not very communicative, and calm. The clinical examination yielded normal results. Investigations showed high liver enzymes – alanine amino transferase (ALAT) at 49 U/l, aspartate amino transferase (ASAT) at 44 U/l, leucocyte count 12.1×10^3 (lymphocytes 67%), low haemoglobin at 10.8 g/dl, low mean corpuscular haemoglobin (MCH) 22.3 pg/cell, low mean corpuscular volume (MCV) 67.4 fl, and thrombocytosis $596 \times 10^9/l$. She scored average on Raven's Intelligence Test.⁸

The child was prescribed ferrous fumarate syrup at 45 mg thrice daily after food for six weeks. The mother observed substantial improvement; the child nearly stopped eating sponge and showed a remarkable improvement in her appetite. Her blood tests showed a return to normal levels, and the liver enzymes decreased. She was given additional Iron syrup for another four weeks. Follow up during two years thereafter showed a stable condition without recurrence.

DISCUSSION AND CONCLUSION

This is an unusual case of pica. A survey of the Internet only yielded one paper describing sponge pica.⁹ Although some attribute Pica to obsessive compulsive disorder (OCD),⁷ we did not find any evidence of OCD in this case. The drastic improvement in the patient's state after anaemia correction is of interest, simulating other studies,¹⁰ and raises the question of whether the pica was caused by malnutrition. On the other hand, sponge, a hydrocarbon, might have affected bone marrow activity causing secondary anaemia. Indeed Pica can have serious medical implications^{3,4} such as lead poisoning, helminthic infestations and iron-deficiency anaemia. The last could be due to competition of the ingested material with iron absorption, or its effect on bone marrow.^{6,11,12} It is important for the parents and physicians to be aware of this often overlooked condition.

REFERENCES

1. **American Psychiatric Association.** *Diagnostic and Statistical Manual of Mental Disorders* (4th edition). Washington DC, 1994.
2. **Popper CH, West SA.** Disorders usually first diagnosed in infancy, childhood or adolescence. In: *Essential of clinical Psychiatry based on the American Psychiatric Press textbook of Psychiatry*, 3rd ed. Hales RE, Yudofsky SC (eds). American Psychiatric Press. Inc. Washington DC, 1999, 539–645.
3. **Rose EA, Porcerelli JH, Neale AV.** Pica: common but commonly missed. *J Am Board Fam Prac*, 2000, **13**, 353–358.
4. **Roberts JW, Dickey P.** Exposure of children to pollutants in house dust and indoor air. *Rev Environ Contam Toxicol*, 1995, **143**, 59–78.
5. **Solyom C, Solyom L, Freeman R.** An unusual case of pica. *Can J Psychiatry* 1991, **36**, 50–53.
6. **Ivascu NS, Sarnaik S, McCrae J, Whitten-Shurney W, Thomas R, Bond S.** Characterization of pica prevalence among patients with sickle cell disease. *Arch Pediatr Adolesc Med*, 2001, **155**, 1243–1247.
7. **Stein DJ, Bouwer C, van Heerden B.** Pica and the obsessive-compulsive spectrum disorders. *S Afr Med J*, 1996, **86** (Suppl), 1591–1592.
8. **Raven J.** The Raven's progressive matrices: change and stability over culture and time. *Cogni Psychol*, 2000, **41**, 1–48.
9. **McAlinden MG, Potts SR.** Sponge bezoar: a rare cause of abdominal pain. *Ulster Med J* 1999, **68**, 36–37.
10. **Geissler PW, Mwaniki DL, Thiong'o F, Michaelsen KF, Friis H.** Geophagy, iron status and anaemia among primary school children in Western Kenya. *Trop Med Int Health*, 1998, **3**, 529–534.
11. **Menge H, Lang A, Cuntze H.** Pica in Germany--amylophagia as the etiology of iron deficiency anemia. *Z Gastroenterol* 1998, **36**, 635–640.
12. **Federman DG, Kirsner RS, Federman GS.** Pica: are you hungry for the facts? *Conn Med* 1997, **61**, 207–209.