

Sponge Eating: An Unusual Type of Pica

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Abstract

Pica is an eating behavior manifested by a craving for the oral ingestion of a substance that is unusual in kind and/or of no nutritional value. Pica is an underdiagnosed problem which can lead to serious complications requiring surgical intervention.

We report a case of a 13-year-old Jordanian girl with sponge pica, who presented with abdominal pain and had evidence of social stress and iron deficiency.

Keywords: Pica, Sponge, Iron deficiency, Obsessive compulsive.

(J Med J 2018; Vol. 52(2):105-108)

Received

July 6, 2017

Accepted

Dec. 24, 2017

Introduction

Pica is most commonly observed in underdeveloped and low socioeconomic areas and is more common in children and pregnant women.¹

The etiology of pica is unknown. Theories on its etiology range from nutritional deficiencies to psychological problems.²

Recently, there has been some evidence that pica is a part of the obsessive-compulsive disorder (OCD) spectrum of diseases.³ However, organic causes must be excluded before pica is treated as a psychiatric condition.⁴

While pica is common, it is underdiagnosed

and easily missed.

Case Report

A 13-year-old girl from a middle-class family in Jordan presented with recurrent abdominal pain, found to be eating sponge since the age of 3 years.

The patient had stopped eating sponge at the age of 5, only to revert to the habit at the age of 11 years, at a time when she was experiencing problems in the family. The patient obtained the sponge by tearing the furniture and swallowing the sponge.

At the time of presentation, the patient had constipation. She denied nausea, vomiting, or epigastric comfort.

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There was no history of pica among her siblings, but her maternal uncle used to eat soap

when he was a child.



a



b

Figure 1: Sponge taken from furniture and eaten by our patient

Physical examination: Height 159 cm (above 50th percentile), weight 39 kg (above 25th percentile). The rest of her examination was noncontributory.

Laboratory tests revealed a hemoglobin of 12 gm%, MCV of 82, RDW of 16.9%, calcium of 10 mg/dL, serum creatinine of 0.4 mg/dL and alanine transaminase of 8 IU. Tests for tissue transglutaminase IgA and IgG were negative. Her serum IgA level was 1.86 (0.47 to 2.5 g/L). Her urinalysis was normal.

Discussion

Pica is characterized by a persistent craving and compulsive eating of non-food substances. The word “pica” comes from the Latin word for magpie, a bird known for its unusual eating

habits.⁷

It is a worldwide problem that has been observed in both sexes and in all age groups, especially children.⁸

There are several types of pica, such as that involving ice (pagophagia), clay (geophagia), paper (xylophagia), glass, coal, dirt, toothpaste, laundry detergent, chalk, rubber and sponge.¹⁰ Sponge pica is rare.

Causes and risk factors for pica are not well-established. However, potential causes include nutritional deficiencies and obsessive-compulsive behavior. The relationship with iron deficiency anemia has been noted, but never fully understood.⁹

Our patient, who was not anemic but had evidence of iron deficiency as reflected by her elevated RDW, had periods of psychosocial stress which coincided with sponge eating, similar to the results of a study by Singhi et al. (1981).¹⁰ Bhatia et al. (2009) mentioned anger as the trigger for obsessive-compulsive episodes, accompanied by depression, during which time their patient consumed chalk.¹¹ Katsoufis et al. (2012) even found pica in 46% out of 87 pediatric dialysis patients.¹⁶ We are of the opinion that our patient's sponge pica was a psychological problem due to emotional stress as well as iron deficiency. However, the exact pathogenesis of her sponge pica remains unknown.

Pica is underreported and not well-

recognized, but, if suspected and sought, it can be detected and treated to prevent complications. There is no test to diagnose pica.

Complications of pica include malnutrition, constipation, abdominal problems, liver damage, and kidney damage.⁹

It can lead to serious complications that require surgical intervention, with intestinal obstruction being the most commonly reported clinical presentation.^{12,13} Fortunately, our patient only presented with abdominal pain.

Table 1 summarizes the literature on sponge eating. Psychiatric problems existed behind every one of these nonpsychiatric presentations.

Table 1. A literature review of sponge eating

Author	Year of study	Country	Age group	Presentation	Reference number
Al-Sharbati M et al.	2003	Oman	Child	Abdominal pain	5
Zanjer V et al.	2011	Croatia	Adult	Suicide attempt. Intestinal obstruction	13
Gupta A et al.	2007	United Kingdom	Child	Obsessive-compulsive disorder	14
Tazi I et al.	2012	Morocco	Adult	Anemia	15
Our patient	2017	Jordan	Child	Abdominal pain	-

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أكل الإسفنج: نوع غريب من اشتها غير المألوف

مالك الخرابشه¹، لانا السبع¹، كمال عقل²

1- طالب سنة خامسة في كلية الطب الجامعة الأردنية.

2- أستاذ طب الأطفال وأمراض الكلى لدى الأطفال.

الملخص

اشتهاء غير المألوف هو سلوك غذائي ينطوي على التشوق إلى ابتلاع مادة معينة بدون قيمة غذائية. واشتهاء غير المألوف مشكلة قل تشخيصها، يمكن أن تؤدي إلى عواقب وخيمة تحتاج إلى تدخل جراحي. في هذا البحث ندرس حالة طفلة أردنية تكمن مشكلتها في اشتها الاسفنج خصوصاً عندما تواجه ضغوطاً نفسية، الأمر الذي سبب لها ألم في البطن مصحوباً بعوز الحديد.

الكلمات الدالة: اشتها غير المألوف، إسفنج، عوز حديد، الهوس القهري.