

# PICA

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## ABSTRACT

*Association of pica and iron deficiency anaemia have been reported in literature. An unusual but completely reversible form of pica in the form of sponge eating is reported as an odd manifestation in a case of iron deficiency anemia. Medical practice is full of challenges and complexity; and clinicians need to be vigilant all the time in their practice to appreciate unusual and rare manifestations of common clinical conditions iron deficiency anaemia.*

**Key words : iron deficiency anaemia, sponge eating, pica.**

## INTRODUCTION

Pica has been described as a persistent eating of non-nutritive substances for at least 1 month in a manner that is unsuitable for a child at the developmental level; it is not a part of the culturally sanctioned practice and is rationally severe to warrant independent clinical attention.<sup>1</sup> This is a peculiar neurobehavioural problem that influences inappropriate development of the children older than 18–24 months. The aetiology remains elusive.<sup>2,3</sup> In this report the authors report a case of pica with iron deficiency anaemia (IDA) manifested through sponge eating and recovering completely with iron therapy.

## CASE

A paediatrician referred a three and a half year old boy with a habit of eating sponge since the age of 3 years. The habit for the sponge aggravated to the extent that he could rip the cushions, car seats and mattresses to get the sponge out. The child was noticed to have a strong, irresistible urge and was seen finishing a large chunk of sponge from a cushion in less than an hour. Occasionally he had been seen eating curtain fibres and newspaper. He was a medically fit boy with a normal intelligence and no behavioural problems. The examination including general physical and systemic resulted to be unremarkable except pallor. The blood investigation revealed iron deficiency anemia with a haemoglobin of 8.3 g/dL, a low MCV (mean corpuscular volume), low MCH (mean corpuscular haemoglobin) and a low MCHC (mean corpuscular hemoglobin concentration) (MCHC). On referral to the haematologist further investigation revealed a very low serum ferritin of less than 2 ng/mL and anisocytosis on the peripheral smear. Thalassemia screening test was done

and has been found to be negative. The liver function tests and renal function

tests were reported normal. The child was diagnosed to be a case of pica with iron deficiency anemia and was kept on iron replacement orally. The symptoms of eating sponge disappeared fully by correcting the iron deficiency anemia.

## DISCUSSION

Several conditions like mental retardation<sup>4</sup>, autism<sup>5</sup>, psychosocial stress in the form of parental deprivation, parental neglect and abuse<sup>6,7</sup> and a variety of behavioural disorders<sup>7,8</sup> have been speculated to be causative factors of pica. There are also reports suggesting that low zinc and iron levels may be linked to pica.<sup>9</sup> In the case documented by the authors, sponge eating (pica) and iron deficiency anaemia was observed. The case responded well to the iron therapy with complete resolution of symptoms of pica. There is still a speculation whether pica causes anaemia or anaemia leads to pica.<sup>10</sup>

The commonest forms of pica are geophagia (soil)<sup>11</sup>, pagophagia (ice)<sup>12</sup> and trichophagia (hair)<sup>13</sup> but the sponge eating as pica is very rarely reported.<sup>14</sup> The present case had an atypical and extreme form of sponge eating. Natural sponge contains various proteins and minerals and is often fortified with silica or calcium salts; however, synthetic sponge consists of cellulose alone. It is not yet clear whether a craving of an unidentified salt fuels the eating of sponge or the texture of sponge acts as an oral stimulant.<sup>14</sup> The aetiology of sponge eating in our case is unknown but it was completely resolved with iron therapy. It is suggested that physical conditions be investigated in all cases of pica and treatment of underlying conditions may help in resolution of the pica.

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