

Case Report

Pica - A Rare but Commonly Missed Embarrassing Problem - A Case Report

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Abstract:

Pica is an unusual condition where patient develops craving for eating non-nutritive substances that can cause significant health risk & also indicates underlying primary disease. Here we report a pregnant Bangladeshi lady with severe Iron deficiency Anemia who has craving for eating mud, earth for months together without noticing to the Doctor. Pica has been practiced for centuries without a clear etiology. We have noticed that many Physicians are not aware of the importance of complaints related to pica. In many situation primary disease is missed. Although it is an embarrassing problem and patient try to hide it, appropriate history & clinical examination will help to explore the primary disease.

Key words: Pica, Iron deficiency anemia, Pica in pregnancy

Introduction:

Pica is an unusual craving for & ingestion of either edible or inedible substances¹. The word pica came from the Latin word for magpie, a bird that is reputed to eat almost anything^{1,2}. Pica is seen in all ages. The DSM-4 defines pica as a form of feeding & eating disorder of infancy or early childhood characterized by the persistent eating of non-nutritive substances for a period of at least one month³. The condition has been described in Medical journals for centuries^{1,2,3}.

One of the first case of pica was noted in 6th century AD & was observed in a pregnant women⁴. Since then, many cases of pica have been reported where patients have acknowledged ingesting Ice Cube (Pago Phagia), Clay (Geo Phagia), Chalk, Starch, Paste, Kayexalate resin (Resin phagia). Pica is most prominent in individual with developmental disabilities⁵. It has been observed in men & women of all ages & ethnicity, but is more prevalent among the lower socioeconomic classes⁵. Worldwide 25% to 33% of all pica cases involve

small children, 20% are pregnant women & 10 to 15% are individual with learning disabilities⁶. A large percentage of adult patients have iron deficiency Anemia.

Pica poses significant health risks that often require medical interventions. These patients are susceptible to electrolyte & metabolic disorder, lead & Mercury poisoning, hypokalemia, parasitic infection, Intestinal Obstruction^{3,6,9}.

The exact etiology of pica remains unclear but it is significantly associated with iron deficiency Anemia, most physicians believe that pica is an effect rather than cause^{2,7,8}.

Unfortunately, we found that the majority of the primary care physician or general practitioners are unaware of pica symptoms. They ignore it or do not try to explore the actual cause. Here we present a patient who presented with pica associated with iron deficiency anemia & she was misdiagnosed at the periphery.

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Case Report:

A 30 years old Bangladeshi pregnant lady presented with craving for eating Mud, Earth for more than two months. Her husband first noticed this embarrassing situation. Initially she denied this to her husband & her husband took her to primary health care provider where she was put on some medications & kept her as antenatal checkup. Within next couple of weeks she became pale and fatigued and then she is visited by specialist

physician. On query she mentioned that she is not interested to take normal food rather she developed an unusual habit to take intense desire for mud, clay.

After taking proper history & doing clinical examination she was found that she is gravid for three months & moderately anemic. She developed the same habit when she was bearing her last child. Her investigations report revealed that her Hb level

was 6 gm/dl, MCV was 64 fl & serum Ferritin was 4 ng/ml. Her peripheral blood film was Microcytic Hypochromic compatible with Iron Deficiency Anemia. When asked to be specific she stated that she would take 4 to 5 pieces of dry mud like biscuits per day and sometimes clay. Her severe Anemia was corrected and was counselled accordingly. Her symptoms resolved gradually.

Discussion:

Although observed since antiquity, Pica remains a mysterious & fascinating occurrence. It seems to be strongly associated with Iron Deficiency Anemia and in the majority of the cases the unusual eating and chewing behavior disappear upon iron supplementation^{1,6,10,11}.

Several hypothesis exist about why iron deficiency causes pica, but there is no agreed consensus^{1,4}. This abnormal behavior has been linked to many factors like age, gender, religion, culture, nutritional deficiency, stress and mental development⁴. When associated with iron deficiency it is believed to be a symptoms of deficiency rather than its cause^{2,10}.

We presented this case because our primary health care provider missed this case, rather thought it is a case of some psychiatric disorder during pregnancy. Iron deficiency anemia is very common in women particularly in the rural area of Bangladesh. May be our patient used to take muds pieces as a supplementation of other nutritional & mineral deficiencies however other literatures revealed this group of people used to take ice cubes, rubber, clay and whatever they find in their neighboring areas. Recently Hackworth and Williams presented three cases where patients with sickle cell anemia readily ingested foam rubber and Kushner et al presented two cases where patients developed Pagophagia after gastric bypass surgery¹¹.

Since iron deficiency may cause glossal pain, it has been proposed that patients with anemia choose to chew ice for its analgesic properties, however rubber bands, foam do not have any known analgesic properties¹⁰. There have been several theories explaining the cause of pica. Some investigators argued that pica practices compensated for nutritional deficiencies such as iron, zinc or other micro nutrients¹¹. Other theories suggest possible psycho-social problem, family stress, obsessive-compulsive disorder or merely the enjoyment of taste & texture of the item being consumed¹².

Interestingly pica is practiced when a patient is least supervised. Patients are also secretive of their pica habit and are often reluctant to mention it. Pica

symptoms will then go unnoticed unless the physician address them^{2,13,14}.

There have been no treatment guideline laid down for pica. If there is underlying causes like anemia that should be corrected first. A number of behavioral modification techniques have been used in cases with pica in patients having developmental disabilities¹². SSRI (Selective serotonin reuptake inhibitor) have been shown to have some positive effect^{12,13}. Supportive psychotherapy & psycho-education works best along with medication especially if comorbid psychiatric disorders are present¹⁴.

Conclusion:

Although pica is a rare condition, but it is commonly missed and under-estimated problem both by the patient and physician. Meticulous history taking regarding eating habit, personal lifestyle should be emphasized by the general practitioner particularly when patient present with pregnancy and anemia. Thus proper history remains the most inexpensive investigation.

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