Case Report

Onset of Obsessive Compulsive Disorder in Pregnancy with Pica as the Sole Manifestation

Suneet Kumar Upadhyaya, Archana Sharma

ABSTRACT

Pica refers to eating of non-nutritious substances, which is usually seen in childhood or pregnancy. Here we report a case of an illiterate tribal woman who developed pica as the sole manifestation of obsessive compulsive disorder, with onset during pregnancy. The patient had compulsions of eating uncooked rice or wheat, which resulted in toothache and abdominal discomfort. She had this habit in three pregnancies, consecutively. In the first two pregnancies it resolved spontaneously after puerperium, but persisted in the last one. Probably physical stress of limb edema during the third pregnancy was reason for the persistence. She responded to fluoxetine 40 mg / day after three months of treatment, without behavioral therapy. We conclude that pica may either be only a manifestation of obsessive compulsive disorder during pregnancy or it is an obsessive compulsive spectrum disorder.

Key words: Amylophagia, obsession, physical stress, pica, pregnancy

INTRODUCTION

Pica is defined as persistent eating of non-nutritive substances for at least one month. The behavior must be developmentally inappropriate, not culturally sanctioned, sufficiently severe to merit clinical attention, and not occurring during the course of another mental disorder.[1]

Such non-nutritive substances include soil / clay (geophagia), starch (amylophagia), ice (pagophagia), burnt matches, charcoal, cigarette ash, and baking soda.[2] The etiology of pica remains unknown; however, nutritional deficiencies of minerals, iron or zinc,[3] and association of family stress have more literature support.[4] Pica during pregnancy has been associated with relief in nausea and vomiting, and with replacement of deficient micronutrients like calcium and iron.[5]

In literature there are many studies of pica in pregnancy, or obsessive compulsive disorder (OCD) in pregnancy; there are few studies regarding pica presenting as OCD,[6] but no case has yet been reported depicting OCD in pregnancy presenting as pica. This is first case report of OCD in pregnancy presenting as pica.

CASE REPORT

A 26-year-old female presented to the dental Outpatient Department (OPD) with complaints of toothache. The dentist found that her teeth were abraded with irregular surfaces. She had the habit of eating uncooked rice and wheat for the last one-and-a-half years, hence, she...
was referred to the Psychiatry OPD. This habit started during the fourth month of her pregnancy. She had an intense and irresistible urge to eat these substances despite being aware of their non-edible nature.

Every attempt of resistance was leading to a feeling of restlessness and anxiety, which resolved only after eating. Initially she was expecting it to subside within few months after delivery like earlier pregnancies, but it persisted with similar intensity. She never ate any other non-edible substance. Her choice between rice and wheat was determined by their availability and there was no preference for either. She always had abdominal discomfort because of her eating patterns. During the last six months she was subjected to multiple religious practices by faith healers, for treatment of the said supernatural illness, but without any result. Pregnancy was reported as uneventful except for swelling of the lower limbs. She delivered a healthy male baby vaginally at home. No other precipitating factor or stress was found.

There was no history of any other abnormal behavior or irrelevant talks, although wasting of time due to her eating habit resulted in inadequate care of the children. There was no history of other repetitive action, ritual or mental repetitions.

She had revealed a similar habit during her previous pregnancies four and six years prior. Every time it started during the third or fourth month and resolved spontaneously two-to-three months after delivery. Both the earlier pregnancies were uneventful and she delivered healthy male and female babies, respectively. There was no past history of psychiatric illness, medical illness, or substance abuse. She and her husband were farmers, living with their three children. Her paternal grandmother had a habit of excessive washing and cleaning. The patient was an illiterate tribal, unable to understand Hindi or English. All communications were mediated by her husband who understood Hindi with some difficulty. On mental status examination she had a depressed mood, in addition to preoccupation with ideas of eating raw rice or wheat. She acknowledged that these repetitive, irresistible thoughts were her own, but she could not describe any reason for her habit, except intense urges for it. No other obsession or compulsion was found. She was considered as a case of OCD presenting as pica. All routine investigations including hemoglobin level were normal. The serum micronutrient assay was not done, as it was not available at our center, it being a new medical institute. Behavior therapy was not considered because of the patient’s language problem and reluctance of her husband. She was started on fluoxetine 20 mg once a day along with alprazolam 0.25 mg per day. After one month she reported mild mood lifting, although the craving and subsequent eating was unchanged. Fluoxetine was increased to 40 mg per day and alprazolam stopped. Significant improvement was noted in her eating habits and depression after taking 40 mg/day for two months. She was maintained on the same dose for six months, after which she was lost to follow-up.

**DISCUSSION**

Despite many reports, pica and OCD are still not considered as similar spectrum disorders. If we go by the convention of two different entities, this case appears to be of OCD rather than pica, despite of some contrary observations.

Our case was an illiterate tribal, of low socioeconomic status. Although these factors are more linked with pica, the association of OCD with lower socioeconomic status is also reported. A family history of a similar disorder can be observed in both pica and OCD, but it has more strong evidences of OCD.

Onset during pregnancy is more in favor of pica, but OCD may have onset during pregnancy. Neziroglu F et al. found that 39% of the women with OCD who had children, developed the disorder during pregnancy. Similarly, spontaneous resolution is usual for pica, but not uncommon for OCD.

One important aspect is the onset of symptoms during pregnancies and resolution of symptoms a few months after delivery in the earlier pregnancies, but persistence in the last one.

Pregnancy is a physical and mental stress, and stress-induced precipitation of psychiatric illness is a fact. Probably OCD in this patient was a response to physical stress, rather than the mental stress of pregnancy, so it resolved spontaneously after puerperium in the previous pregnancies, but the presence of edema in the last pregnancy increased the magnitude of physical stress, resulting in persistence of the symptoms. Neziroglu F has observed that the most common life event associated with the onset of OCD in women without children is physical illness, in women having children it is pregnancy. Among various perinatal risk factors, edema during pregnancy and prolonged labor have the maximum potential for persistence of OCD.

Our patient improved after pharmacological treatment at doses required for OCD and no pica management was used. This observation suggests that the psychopathology was of OCD, which presented as amyllophagia.
Although OCD patients usually have some other symptoms, it is not uncommon for OCD to present with single compulsion, without other symptoms.\(^{12}\)

We conclude that either of these two hypotheses will be established in future. First, pica is one of the obsessive compulsive spectrum disorders; second, pica may be the presenting symptom of pregnancy onset OCD, like washing or checking.

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