



PICA PRESENTING AS IMPULSE CONTROL DISORDER IN AN ADULT: A CASE REPORT.

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ABSTRACT Pica, defined as the persistent ingestion of non-nutritive, non-food substances, is most commonly encountered in childhood, pregnancy, and intellectual developmental disorder. Its occurrence in otherwise healthy adults without nutritional deficiency or pervasive developmental disorder is uncommon, and its psychopathological basis in such cases remains insufficiently characterised in the existing literature. We present a case of chronic pica in a 27-year-old married woman who had been ingesting black stones and pebbles since the age of 14. The behavior began sporadically in adolescence, escalated significantly following marriage and during pregnancy, and was persistently maintained in the absence of iron or zinc deficiency, parasitic infestation, cognitive decline, or psychotic illness. The ingestion was characterised by a spontaneous, intrusive urge that was difficult to delay or resist, accompanied by mounting tension relieved only upon performing the act — a tension-relief cycle closely analogous to impulse control disorders. Urges were closely associated with psychological distress, including bereavement following a traumatic loss. She also met criteria for Persistent Depressive Disorder (Dysthymia), though the pica behavior appeared to operate as a distinct and co-existing psychopathology independent of mood fluctuation. Investigations revealed no clinically significant nutritional or organic cause. She was managed with mirtazapine for her depressive symptoms alongside psychoeducation and behavioral interventions targeting impulse regulation, with marked reduction in pica frequency observed at three-week follow-up. This case signifies the need to consider impulse-driven behavioral dysregulation as an underlying mechanism in chronic pica in adults not better explained by conventional etiological factors, and highlights the importance of early psychiatric recognition and targeted intervention.

KEYWORDS : Pica in Adults, Impulse Control Disorder, Behavioral Dysregulation, Non-Nutritive Substance Ingestion

INTRODUCTION

Pica is defined as the persistent eating of non-nutritive, non-food substances for at least one month, in a manner that is developmentally inappropriate and not part of a culturally sanctioned practice.¹ While commonly seen in childhood, pregnancy, intellectual developmental disorder (IDD), and sometimes psychotic illness, pica in otherwise healthy adults is unusual.^{2,3} When such behavior is prolonged and not explained by nutritional, cultural, or developmental factors, it raises the question of underlying behavioral dysregulation or impulse-driven patterns.^{4,5} Growing evidence has highlighted the role of psychological stress, family dynamic issues, and individual vulnerabilities in the development of pica in adults.^{2,4} Here we report a case of chronic pica in an adult woman, presenting with features consistent with an impulse-driven behavioral pattern, managed in a tertiary care hospital's psychiatric outpatient setting.

Case Summary

A 27-year-old married woman from a rural background presented who was referred from gastroenterologist with history of a longstanding pattern of ingesting black stones/pebbles, beginning at approximately age 14. Initially, the behavior was sporadic, but it became increasingly frequent as time progressed. Family members observed her behavior and repeatedly discouraged her, yet she persisted.

The behavior escalated significantly upon marriage and during pregnancy⁶, when she began keeping stones in her mouth and grinding them throughout the day on an everyday basis, and covertly to avoid detection by her husband and in-laws. Even during her pregnancy, despite knowing the consequences and repeated confrontations and promises to cease, she continued the behavior, often in secret.

Her behavior was markedly influenced by periods of psychological distress or tension during which she has the urge to grind stones which she described as spontaneous intrusive impulse which was difficult to delay or resist and creating a sense of mounting tension that could be relieved with reduction in stress, although temporarily, only upon performing the act. Notably, the urges intensified following the traumatic loss of her younger brother in a road traffic accident.

Medically, she developed multiple gastrointestinal symptoms over the preceding two years, including episodic vomiting after meals, persistent constipation, diarrhea, and epigastric discomfort. These

symptoms prompted numerous visits to medical and ayurvedic practitioners which included the gastroenterologist who had diagnosed her with gastritis, treated her symptomatically and then referred to psychiatry OPD upon discovering her behavioral pattern. Investigations at the time of referral revealed no evidence of clinically significant iron or zinc deficiencies, no deranged serum ferritin levels, which is clinically important, as iron-deficiency and zinc-deficiency are recognized causes of pica that resolve with nutritional correction,⁷ stool examination revealed no parasitic infestations. Despite these health issues, she continued stone ingestion unabated.

Upon further interviewing, she reported of having low mood, decreased interest in work, lack of interest in previously enjoyable activities, withdrawal from family interactions, sleep disturbances, also reported difficulties concentrating at tasks, and experienced intermittent anger outbursts, mostly unprovoked or during arguments with her spouse since last 2 years, leading to probable diagnosis of Persistent Depressive Disorder (Dysthymia)^{1,8}. However there was no evidence of cognitive decline, symptoms of psychosis, or familial psychiatric history.

The patient was treated for her depressive symptoms with mirtazapine 7.5 mg, a noradrenergic and specific serotonergic antidepressant (NaSSA) with established efficacy for major depression⁹ with a planned dose titration¹⁰ and zolpidem 10 mg to address her insomnia. Psychoeducation regarding the nature and consequences of pica was provided. Behavioral intervention targeting impulse regulation - including stimulus identification, urge delay techniques⁵, and competing response training - was initiated.^{11,12} At three-week follow-up, a marked reduction in pica behavior was observed, with stone ingestion decreasing in frequency to approximately once every two days, accompanied by improvement in mood and social functioning.

DISCUSSION

This case highlights urge-driven pattern of chronic non-nutritive substance consumption in an adult female. It was closely linked with emotionally distressed state in absence of nutritional deficiencies, IDD or pervasive developmental disorder, and resulting in significant medical co-morbidity and psychosocial dysfunction

The chronicity and urge-driven pattern of pica in this patient suggest an underlying impaired behavioral regulation- consistent with an

impulse-driven mechanism. The psychiatry literature emphasizes more on associated disorders of Pica than its mechanism or psychopathology.^{2,4}

The overlap of pica behaviors with patterns found in impulse control disorders was also proposed earlier, persistent Pica behavior in adults in absence of all the causes associated, may represent a manifestation of an impulse control disorder driven by irresistible urges.⁴ The temporal relationship between psychological stress, the urge to grind/chew/ingest, and the reported relief - analogous to the tension-relief cycle described in impulse control disorders supports this interpretive framework.⁵ Importantly, the pica behavior persisted irrespective of her current or fluctuating mood and no correlation found between the occurrence of urges to her state of mood which may indicate that the two phenomena, while coexisting, are two distinct psychopathology.

Treatment recommendations include thorough psychiatric assessment, exclusion of nutritional and organic causes, psycho-education, behavioral interventions, addressing environmental stressors, and supportive counseling targeting impulse management.

CONCLUSION

Chronic pica in adults in absence of other primary psychiatric or medical causes, should prompt consideration of impulse-driven behavioral dysregulation. Early recognition and psychiatric management targeting stress and impulse regulation can reduce complications and improve long-term outcomes.

Patient Consent: Written informed consent was obtained from the patient for publication of this case report.

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