

ATYPICAL CASE OF PICA RESPONDED TO SSRI**¹Navneet Kaur Bhatia, ²Navleen Kaur Bhatia and ³*Manjeet Singh Bhatia**¹Department of Dental Surgery, Dr. R.M.L. PGIMER & Hospital, New Delhi.²Department of Orthodontics, A.I.I.M.S., Jodhpur, Rajasthan.³Department of Psychiatry, U.C.M.S. & G.T.B. Hospital, Dilshad Garden, Delhi-110095.***Corresponding Author: Manjeet Singh Bhatia**

Department of Psychiatry, U.C.M.S. & G.T.B. Hospital, Dilshad Garden, Delhi-110095.

Article Received on 10/03/2020

Article Revised on 30/03/2020

Article Accepted on 19/04/2020

ABSTRACT

Pica is a common disorder in childhood, however, in adults it is associated with mental retardation, psychosis and pregnancy. A few case reports have described it being associated with obsessive compulsive disorder in adults. We describe the case of an adult male patient who developed an impulse to ingest 4 to 5 bottles of mouthwash. These thoughts were ego-dystonic and kept on hammering his mind until he ate it. He was diagnosed as having pica. We prescribed him vilazodone 20mg with clonazepam and asked him to ventilate his feelings during stressful situations. He showed remarkable improvement in pica symptoms in 4 weeks. It can be concluded that stress may induce the pica in some adults and that such feelings have impulsive/compulsive characters.

KEYWORDS: Pica, Mouthwash, Obsession, SSRI, Vilazodone.**INTRODUCTION**

Pica is defined as the consumption for at least one month of a non-nutritive substance inappropriate for the developmental level. It should be culturally unacceptable and the subject must have normal mentation.^[1] In DSM 5, it is included in Feeding and Eating disorders.^[2] Ingestion of non-edible substances has been described commonly in children with a linear decline with their age (75% at 1 year compared to 15% at 2-3 years).^[3] Attempts to find out the etiology revealed that it is more common in children with nutritional deficiency^[3], psychosocial stress, maternal deprivation, and disorganized and impoverished family situations.^[4] In adults, pica is associated with pregnancy, severe mental impairment and psychosis.^[3] However, its exact prevalence in adults is not known and the literature citing pica as the sole diagnosis in adults is rare.^[5] A few authors had reported an association between pica and OCD^[6-8], whereas others did not report any association.^[9] Thus, it is a debatable issue, and pica may be an uncommon presentation in response to an obsession or an impulse in adults. Proper taxonomic placing of pica, especially in adults, will help in development management strategies, not only in adults but probably also in children.

CASE REPORT

Mr. S, a 30-year-old male, presented with a history of uncontrolled impulse to drink 4 to 5 bottles of mouth wash daily. This had started one year back when he had a toothache and went to a Dentist. He treated him with filling and prescribed antimicrobials, analgesics and

mouthwash. He stopped all medications after one week but could not stop mouthwash. He had uncontrollable thoughts that using mouthwash will prevent his future dental problems. He liked the taste and gradually started drinking it believing that it will kill all bacteria in his stomach. Initially, he used to drink half a bottle and it gradually increased to 4 to 5 bottles (400-500ml) daily.

He also complained of numbness, heaviness of head and poor concentration that was interfering in his working as a IT professional. Past history and medical history were unremarkable. When asked about substance use/dependence, he disclosed that since a year, i.e. he episodically had an irresistible desire to drink mouth wash. Although he did not like this impulse and felt unable to overcome the urge. Moreover, as he knew it was a non-edible substance, He attempted to resist it and such attempts always enhanced anxiety, and only ingestion of mouth wash could calm him. He knew that possible medical problems, e.g., burning of mouth, pain abdomen could develop after long-term ingestion of the substance. But the ingestion was not associated with a feeling of wanting to punish himself, nor did this impulse respond to any other edible substance. In addition, he was not sure whether the feelings of ingestion were compulsive/ impulsive since onset. But for the past year they had definitely had a compulsive/impulsive character. The information was cross-checked with the details provided by his wife. His wife reported that her husband also complained of irritability, headache, anxiety, forgetfulness and occasional sleeplessness.

The patient's routine investigations were normal and evidence of a medical disorder could not be found. According to DSM 5, diagnosis of pica was made. He was prescribed Vilazodone 20 mg/day along with clonazepam 0.25 mg/day for 1 week. Supportive therapy was provided and his wife was instructed to be empathetic with her husband. The patient was psycho educated about his symptoms and harmful effects of mouth wash ingestion. The patient reported slight improvement at follow up after 15 days. He was advised to revisit the clinic after 2 weeks.

He was happier because for the past 10 days, he had not ingested mouthwash, nor had he developed the urge to ingest it, even during stress. The next follow-up was planned after 2 weeks. At this visit, his symptoms had improved further; his wife reported that during this period he did not ingest mouthwash. The treatment continued and he is still being followed-up.

DISCUSSION

The present case has many important features: Pica developed without any stressful situation; pica had a character of impulse/compulsion; there is hardly any previous report of mouthwash ingestion and pica improved with the selective serotonin reuptake inhibitor, vilazodone. Stressful situations are well known to aggravate pica^[10] but, in this case, there was no stressful condition reported but there was belief that ingestion would kill germs in stomach. Since most of the cases of pica have been described in children, this patient was an adult. The second issue is related to the presentation of pica as an obsession/impulse. In this patient, thoughts of consuming mouthwash were repeated, intrusive and ego-dystonic, and attempts to resist the feelings increased anxiety, which was then relieved by ingestion of the substance, confirming all the criteria for obsession/impulse. We could find only few case studies, which describes the pica as compulsion and impulse control disorder.^[5,7] These evidences suggest that pica could therefore be related to obsessive-compulsive disorders and neurobiological study has supported this hypothesis.^[7]

In this case, pica improved with vilazodone in the doses lower than those reported to be effective in OCD, without behavior therapy. Previous studies have also reported similar results with SSRIs.^[7,11]

Mouth Wash contains sodium fluoride as an active ingredient. The common side effects of using a chlorhexidine-containing mouthwash include stubborn brown staining of teeth and oral appliances, including dentures, increased formation of tartar (calculus), temporary alteration to taste (dysgeusia), oral dryness and a sensation of burning of the oral mucosa^[12] Chlorhexidine in mouth wash treats gingivitis, not periodontitis. A very serious allergic reaction to this drug is rare but may occur which includes rash, itching/swelling (especially of the face/tongue/throat),

severe dizziness, trouble breathing. Symptoms of overdose may include: burning in the mouth, sore tongue, nausea, vomiting, diarrhea, increased saliva, stomach pain/cramping, muscle weakness, shaking, seizures.^[12]

The common ingredients of mouthwash and their toxic effects are: Hexetidine (Too much of this drug taken internally leads to severe chronic conditions such as clotting in the brain); Methyl salicylate (In its pure state, it is toxic); Benzalkonium chloride (it is an allergen) Thymol (it is being investigated as a mutant); Eucalyptol (It can have acute health effects on behavior, reproductive system and the respiratory tract as well as the nervous system); Cetylpyridinium Chloride (causes extrinsic tooth staining); Methyl paraben (may cause skin irritation and contact dermatitis and Rosacea occur in individuals with paraben allergies); Sodium fluoride (causes staining of teeth); Hydrogen peroxide (Danger comes from its vapor as well as through swallowing or skin contact) and alcohol (content may be up to 27% alcohol solution: Because alcohol is a drying agent, it can reduce saliva and add to bad breath problems).^[13] The mouth rinses may be used as a substitute for alcoholic beverages.^[14,15]

There are no studies which mentioned that mouth wash causes dependence due to alcohol content and there are withdrawal symptoms on its stoppage. The evidence suggests that the alcohol component of mouthwashes affords little additional benefit to the other active ingredients in terms of plaque and gingivitis control.^[16] Aqueous preparations of mouth wash without any toxic contents should be prescribed and that is under medical supervision.

CONCLUSION

This report highlights the fact that pica may present as an obsession-compulsion or impulse. However, because its response to SSRIs did not match that of obsessive-compulsive disorder, it may be a disorder that falls under the obsessive-compulsive spectrum disorders.

REFERENCES

1. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 4th ed. DSM-IV-TR. Washington, DC: American Psychiatric Association, 2000.
2. American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders: Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition. Arlington, VA: American Psychiatric Association, 2013.
3. Chatoor I. Childhood disorders: Feeding and other disorders of infancy or Early childhood. In: Tasman A, Kay J, Liberman JA, editors. Psychiatry. Bangalore: Panther Publishers Pvt Ltd., 2004: 799-820.

4. Singhi S, Singhi P, Advani GB. Role of psychosocial stress in the case of pica. *Clin Pediatr*, 1981; 20: 783-785.
5. Bhatia MS, Gupta R. Pica responding to SSRI: An OCD spectrum disorder? *World J Biol Psychiatry*, 2009; 10(4): 936-938.
6. Luiselli JK. Pica as obsessive-compulsive disorder. *J Behav Ther Exp Psychiatry*, 1996; 27: 195-196.
7. Stein DJ, Bouwer C, van Heerden B. Pica and obsessive-compulsive spectrum disorders. *S Afr Med J.*, 1996; 86(Suppl 12): 1586-1588.
8. Gundogar D, Demir SB, Eren I. Is pica in the spectrum of obsessive-compulsive disorders? *Gen Hosp Psychiatry*, 2003; 25: 293-294.
9. Gangdev PS, Kariuki FN. A case of pica neither a compulsion nor an impulse. *S Afr Med J.*, 1996; 86(Suppl 12): 1615-1617.
10. Walsh BT. Eating disorders. In: *Psychiatry*, Tasman A, Kay J, Liberman JA, (eds). Bangalore: Wiley-Blackwell, 2004.
11. Haoui R, Gautie L, Puisset F. Pica: a descriptive study of patients in a specialty medical center. *Encephale*, 2003; 29: 415-424.
12. <https://www.webmd.com/drugs/2/drug-75720/fluoride-mouthwash-dental/details>.
13. Pradeep Kumar S, Athiban Raj J. Effects of Alcohol Containing Mouthwash on Oral Tissue: A Review. *Int J Sci Res (IJSR)*, 2017; 6: 1584-1587.
14. Egbert AM, Reed JS, Powell BJ, Liskow BI, Liese BS. Alcoholics who drink mouthwash: the spectrum of non-beverage alcohol use. *J Stud Alcohol*, 1985; 46: 473-481.
15. Sperry K, Pfalzgraf R. Fatal ethanol intoxication from household products not intended for ingestion. *J Forensic Sci.*, 1990; 35: 1138-1142.
16. Werner CW1, Seymour RA. Are alcohol containing mouthwashes safe? *Br Dent J.*, 2009 Nov 28; 207(10): E19; discussion, 488-489.