

EFFECTIVENESS OF INDIVIDUALIZED HOMOEOPATHIC MEDICINE FOR PICA IN THE AGE GROUP OF 2 – 15 YEARS: A CASE SERIES

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Abstract

Pica, a behavioural disorder marked by the persistent consumption of non-edible and non nutritive substances such as soil, raw rice, raw potatoes, pencil chalk, paper, and soap, often affects children. This case series includes 30 children, aged 2 to 15 years, diagnosed with pica using DSM-5 criteria and evaluated with the PARDI scale. Individualized homoeopathic medicine were prescribed based on the physical, emotional, and mental profiles of each patient. Calcarea Carbonica, Tarentula Hispanica, and Silicea were commonly used. Symptom improvement was observed over six months through regular follow-ups, and paired t-tests confirmed clinical effectiveness. This research advocates for further studies into the role of homoeopathy in managing pica.

Keywords: Pica, Case series, DSM-5, Children, Behavioural disorder, Non nutritive substances, Individualized homoeopathic medicine

Introduction

Pica is characterized by the persistent eating of non-nutritive, non-food substances such as paper, soap, pencil, raw rice, raw potatoes, charcoal, clay, wool, ashes, and paint for a minimum of one month [1]. The term "pica" originates from the Latin word for magpie, a bird known for its indiscriminate eating habits [2][3]. While mouthing non-food items is a common developmental behaviour in young children, persistent ingestion may indicate a behavioural disorder. According to the Diagnostic criteria by DSM-5, pica is defined as the persistent eating of non-nutritive, non-food substances over a period of at least 1 month [7]. The disorder is most prevalent in children between the ages of 2 to 3 years, with varying prevalence globally, ranging from 10% to 32.5%, and as high as 73% among school-aged children. Items consumed may include starch, vomit, raw potatoes, dirt, stones, ice, hair, and more. While the exact etiology is unknown, it is believed that biological, environmental, and psychological factors contribute to its development. These include iron deficiency, traumatic experiences, developmental delays, and cultural beliefs. Clinical manifestations include cravings for clay, chalk, soil, hair, and erasers, and may present with constipation, abdominal discomfort, nausea, vomiting, and reduced appetite. Complications such as iron-deficiency anemia, lead toxicity, and parasitic infections are common [10,11].

Etiology and Predisposing Factors

Pica may result from a variety of factors including [3,8]:

1. Iron deficiency anemia
2. Pregnancy

3. Cultural or traditional beliefs
 4. Nutritional deficits (zinc, iron)
 5. Psychological stress
 6. Child neglect and abuse
 7. Maternal deprivation
 8. Low socio-economic status
 9. Underlying mental health conditions
- Diagnostic Criteria ^[8,9]: Persistent consumption of non-nutritive items for at least one month inappropriate behaviour for the individual's developmental level not associated with cultural or societal norms. If associated with another mental disorder or medical condition, it must warrant separate clinical attention. ICD-9-CM code: 307.52 | ICD-10-CM codes: F98.3 (children), F50.8 (adults) Complications ^[11]:
1. Toxicity: Heavy metal poisoning, vitamin/mineral imbalances
 2. Obstruction: Gastrointestinal blockage due to foreign bodies or bezoars
 3. Overeating: Increased intake of non-food calories
 4. Nutritional deprivation: Growth delay, achlorhydria
 5. Others: Dental injuries, parasitic infections
- Homoeopathic Remedies ^[12-14]:
- a. Calcarea Carbonica: For individuals with cravings for indigestible items like chalk, coal, raw potatoes. Associated with fat, fair, flabby constitution.
 - b. Alumina: For cravings like charcoal, dry foods, chalk, especially in sedentary individuals with chronic constipation.
 - c. Cina: Notable for red cheeks, sour breath, craving for indigestible substances, especially in children.
 - d. Silicea terra: Craving for mud and non-food items, associated with aversion to meat and constipation.

Repertory References:

Kent ^[17], Pathak ^[18], Murphy ^[19], Synthesis by Schroyens ^[20], Boericke ^[12]

Methods

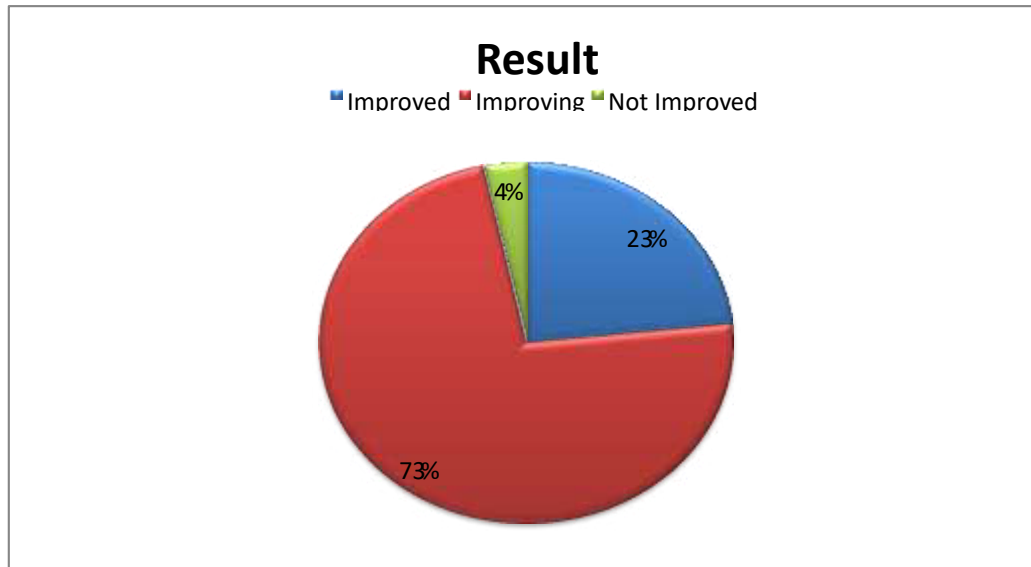
This case series was conducted over a six-month period at Motiwala Homoeopathic Medical College and Hospital. 30 patient, aged between 2 to 15 years, presenting with Persistent pica behaviour were enrolled. Diagnostic evaluation was carried out using DSM-5 based PARDI scale criteria. Each patient was individually assessed using a detailed case recording format. Remedies was prescribed on the principle of individualized homoeopathic medicine, using symptom totality and repertorization with radar opus software. Follow-ups were conducted every 15 to 30 days, and clinical response was evaluated through DSM-5 PARDI score.

- INCLUSION CRITERIA (Eligibility criteria): Children aged 2 to 15 years of age and both sexes.
- EXCLUSION CRITERIA: Children with systemic or psychiatric illness.
- STATISTICAL ANALYSIS: Statistical analysis will be done by using "Paired T test".

$T = 14.86$ (Calculated value) $T_{0.05} = 2.04$ (Table value) Inference: T (Calculated value) $>$ t (Table value) $T (14.86) > t (2.04)$ Therefore, our null hypothesis is rejected. Hence, individualized homoeopathic medicines are effective in cases of pica in the age group of 2 – 15 years.

Results

A well- studied study group showed that individualized homoeopathic medicines can be used in cases of pica, with decreased frequency of consuming indigestible things. There were 23% improved cases, 73% improving cases, and 4% did not improve. The paired t test conducted on the PARDI score of the patient before and after administering homoeopathic medicines for pica showed that the statistics of the sample (14.86) was greater than the table t statistic (2.04).The most frequently indicated homoeopathic remedies included Cal. carb., Tarent. H., and Silicea.



Discussion

Pica, is a common behavioural of persistent eating of indigestible things (non edible/ non-nutritive) e.g. dust, soil, paper, charcoal, stones, raw rice, pencil and fingernails, etc., for a period of at least 1 month. Findings of this case series provide valuable insights into the effectiveness of constitutional remedies in the treatment of Pica among a diverse group of patients in the age group of 2 to 15 years at Motiwala (National) Homoeopathic Medical Hospital and peripheral camp. The study, conducted over a span of six months, included 30 cases with a gender distribution of 15 females and 15 males. In the present study, the age of children ranges from 16 cases of 2 to 8 years of age and 14 cases age ranging from 9 to 15 years old . The tool used for assessment are PICA diagnostic criteria: by DSM-5 from Pica ARFID, and Rumination Disorder Interview (PARDI) scale proved effective in tracking changes and evaluating the holistic impact of the homoeopathic intervention. This highlights the importance of employing comprehensive evaluation methods in future studies to ensure a thorough understanding of treatment outcomes. Patients received counselling about the risks associated with practicing pica, young children were guided to distinguish between food and non-edible things. After the study of 6 months, we observed that out of 30 patients, 29 patients have improved that is the severity score is reduced by previous score

and 1 patient has not improved that is the severity score remained the same or slightly decreased, which was measured using PICA diagnostic criteria: by DSM5(PARDI scale). According to data collected, Statistical analysis was done using paired t-test, the interpretation is depicted in tabulation and graphical format and the Null hypothesis was rejected.

In our study we observed that Homeopathic medicine reduces the PARDI score effectively according to symptom similarity. Homeopathic medicines acts dynamically on vital force and restores patients both mental and physical health. While this study provides encouraging preliminary evidence for the effectiveness of constitutional remedies in treating Pica, further research with a more extensive and diverse sample, controlled design, and rigorous methodology is necessary to establish the generalize and reliability of these findings. The insights gained from this case series lay the foundation for future investigations into homoeopathic approaches for eating disorders, contributing to the broader understanding of alternative therapeutic modalities in mental health.

Conclusion

According to our study, We conclude that Individualized Homoeopathic Medicine is as effective in managing the cases of Pica in age group 02 to 15 years.

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