

# A Case Report of Treating Diabetes Insipidus with Iranian Traditional Medicine and a Focus on Cellular Energy

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## ABSTRACT

A six years old male patient with a history of polydipsia and polyuria and a diagnosis of central insipidus diabetes, and prescribed desmopressin has been examined by an Iranian traditional medicine (ITM) specialist for an alternative treatment plan. Based on the six essential rules in ITM and with the purpose of restoring and balance of the temperament and humors, patient has undergone nutritional, medicinal, and manual changes which have been effective in treating his condition. During the 4 months follow-up no recurrence has been observed which suggest the effectiveness of the treatment plan. Further studies should lighten the therapeutic potency of ITM on other metabolic and systemic diseases.

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## KEYWORDS:

Diabetes Insipidus, Cellular Energy, Traditional Medicine, Treatment.

## ARTICLE HISTORY:

Received Oct 04, 2021

Accepted Nov 19, 2021

Published Dec 25, 2021

## DOI:

10.5455/jcmr.2021.12.04.21

VOLUME: 12

ISSUE: 4

ISSN: 2146-8397

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## INTRODUCTION

Diabetes insipidus (DI) is a rare form of polyuria or polydipsia in which excretion of urine exceeds 3 litres in 24 hours (1). The anti-diuretic hormone (ADH) or vasopressin is responsible for the osmotic balance of blood, blood pressure, and sodium homeostasis. ADH is secreted by the posterior pituitary glands and increases water resorption by kidneys upon its secretion (2). Impaired or inadequate secretion of ADH, or impaired or insufficient response to this hormone are the two primary cause of DI. The former is called central or neurogenic DI

(CDI) and the latter nephrogenic DI (NDI). Also, thirst disorder or primary polydipsia that is seen in psychiatric patients, and increased ADH metabolism during gestation are two other causes of DI (3). The treatment of CDI is simply replacing the missing hormone, however, half-life of AVP is 5 to 10 minutes in blood. Hence, desmopressin (dDAVP), a synthetic analogue for V2 receptors, is the drug of choice for treating CDI (4). Also, low-solute diet, thiazide plus amiloride diuretics, and prostaglandin inhibitors are used for the treatment of NDI (5).

The Iranian Traditional Medicine (ITM) is a discipline that has been established in the country for more than a century and

has been practiced since. ITM categorizes human temperament or "Mizaj" into four groups; warm, cold, dry, and wet temperament. An individual's temperament determines the symptoms of a disease in that individual, hence, based on the temperament a single disease can manifest itself differently in different people (6). Another principle in ITM is the balance between body humors. This balance is vital for mental and physical health. Hence, ITM's main objective is to maintain or restore this balance through the six essential rules or also known as "Setah Zaroriah". These six rules include: Air, Food and Drink, Sleep and Wakefulness, Evacuation and Retention, Carnal movement and Repose, Mental movement and Repose (7). This case report presents a case of diabetes insipidus in a 6-year-old male patient who has undergone ITM therapy.

### Case Presentation

A six years old male patient with history of polyuria and polydipsia, with colourless urine, has been diagnosed with CDI based on laboratory tests and MRI. The physicians prescribed dDAVP nasal spray (each dose less than 10 mcg and one dose every night). The symptoms and physical status had improved during the next two weeks. However, the patient consulted with a ITM specialist for an alternative treatment plan. The ITM specialist, based on triangle of health, treated the patient in three steps: Nutritional changes, Medicinal changes, and Manual therapies.

The nutritional changes included: decreasing consumption of foods with a cold temperament, using boiled water instead of cold water, consumption of organic oil and animal fat, consumption of honey and fennel flower oil (dosin), drinking apple juice, eating boiled meat, consumption of grape syrup, an increase in the consumption of fresh fruits and vegetables with warm and wet temperaments, and using of organic protein sources particularly local lamb and poultry products. The medicinal changes included: consumption of brewed nettles twice a day, consumption of Fennel flower oil three drops each day, consumption of brewed dracocephalum, weekly consumption of cinnamon, ginger, lavender and feverfew. Finally, the manual therapies included: bloodletting from the posterior region of neck every three months, massaging upper limb and back with fennel flower oil, and light cupping of the lumbar region.

Upon maintaining the treatment based on triangle of health, the patient's status improved during two weeks and the CDI was cured. The patient was followed for 4 months and no sign of recurrence has been seen.

### DISCUSSION

ITM has been previously approved as effective in treating numerous disorders such as metabolic syndromes and diabetes (8-10). For more than a century, ITM has been practiced in Iran and its practice has yielded successful results. ITM believes that seven natural affairs exist in the human body and it call it "Umoor-e-Tabee-e-ya". The seven

natural affairs include: elements, temperament, humors, organs, spirits, faculties or forces, and functions. The balance between these seven essential entities determines the physical and mental health. The ITM's main goal is to maintain or restore this balance in the body and its main tool, as has been described earlier, is health triangle or Setah Zaroriah. The imbalance between body temperaments and humors is believed to be the main problem in diseases. Hence, when a disease alters the temperament and disrupts humors function, by administering changes in nutrition we can restore the natural temperament and downsize its effect on humors, hence, treat the disease. The medicinal and manual therapies also affect other symptoms of the disease and are remedies for them (7).

The patient in this report had a history of cold water and cold food consumption which further exacerbated his CDI. The nutritional changes and using boiled water instead of cold water improved his symptoms. Using hot and boiled water instead of cold water has previously been proved effective in several conditions(11, 12). This method has also been used in another case report of treating CDI with warming blood circulation in Chinese medicine (13). The medicinal therapy has ameliorated the polydipsia and polyuria which is suggestive of the therapeutic effects of ginger, cinnamon, dracocephalum, feverfew, and nettle. This case report has applied a novel approach towards treating diabetes insipidus. One study treated CDI with consumption Solanum indicum, which is suggestive of the effectiveness of alternative and traditional medicine in treating metabolic disorders (14).

No other study has used ITM in treating and management this condition. However, an animal study suggested the therapeutic potential of ITM in treating diseases related to pituitary gland (15). This report suggests further investigations regarding the effect of the herbal medicines and health triangle in other pituitary gland dysfunctions. Further laboratory test determined the NID, which has been previously missed by the physician. The same treatment regiment has been taken to treat NID as well. The 4-month-follow-up proves the restoration and balance of bodily temperament and humors in the patient. Due to the fact that no recurrence has occurred, our treatment plan was proved to be effective.

### CONCLUSION

This report has used ITM and its essential six rule to treat and manage insipidus diabetes. This was a novel approach for treating this disorder and further investigations regarding the physiological, pathological, and pharmacological processes can brighten the therapeutic potency of ITM.

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