



## Effect of Thermotherapy on Mixed Urinary Incontinence Based on Persian Medicine: A Case Report

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Received: 10 Jul 2017

Revised: 12 Aug 2017

Accepted: 19 Aug 2017

### Abstract

Involuntary urination called urinary incontinence, is a worldwide major health problem with enormous negative consequences. Three large categories in women urinary incontinence are: stress urinary incontinence, urge urinary incontinence and mixed urinary incontinence. The diseases mechanism is seen as the muscle dysfunction of the bladder's wall and sphincter. Persian Medicine literature, women urinary incontinence has two main reasons: cold and wet- temperament affecting the bladder muscle dysfunction, and relaxation of bladder sphincter. Both conditions occur due to cold-nature and humidity. We present a 53-years-old woman with chronic mixed urinary incontinence that has shown an acceptable response to simple topical heating treatments designed on the basis of Persian Medicine to eliminate the mentioned cold and wet temperament based on relative questionnaire. After 4 weeks thermotherapy, score of disease severity improved significant. In follow of patient after 6 weeks the effect of treatment was indelible.

**Keywords:** Mixed urinary incontinence, Topical treatment, Persian Medicine

**Citation:** Shirbeigi L, Niktabe Z, Masoudi N, Tabrrai M, Nejatbakhsh F. **Effect of Thermotherapy on Mixed Urinary Incontinence Based on Persian Medicine: A Case Report.** Trad Integr Med 2017; 2(3): 129-132.

### Introduction

Urinary incontinence (UI) is the complaint of any involuntary loss of urine [1] with prevalence of about 23.5% in Iranian women [2]. It

is a common problem with negative social, economic, cultural and psychological consequences [3]. Three important types of female UI are: stress urinary incontinence (SUI), urge urinary incontinence (UUI) and mixed urinary inconti-

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nence (MUI) [3, 4, 5]. Upon Persian Medicine literatures, female UI has two main reasons; “cold” and “wet temperament” affecting the bladder wall, and relaxation of bladder sphincter muscle, which leads to dysfunction of them [3, 4] as well as their dysfunction in conventional medicine [5]. This study evaluated the effect of low-cost and low-risk topical treatment to eliminate the mentioned cold and wet temperament, which can improve the patient’s symptoms.

## Presenting the case

### *History and examinations*

The patient is a 53-years old woman with MUI since ten years ago. Diagnosis was based on the Persian version of the International Consultation on Incontinence; Urinary Incontinence Short Form Questionnaire (CIQ-SF) [6]. The questionnaire used to diagnose and evaluate the severity of female UI in clinical trials and has a high sensitivity/specificity in assessing MUI. It is significantly in coordination with urodynamic studies [6]. Upon the questionnaire the patient’s symptoms included involuntary urine excretion often in high volume occurring two to three times a week that occurred before reaching the toilet as well as by coughing, sneezing, laughing, spontaneously and without reason and affected the patient’s quality of life severely. The patient had no medication history of MUI over the last year and cerebrospinal and neurological diseases also. She had a past of ischemic heart disease, hypothyroidism and hypertension, managed and were control by the relevant specialist. She was not using any diuretics. Other positive points of history and clinical examinations associated with the MUI via Persian Medicine points, included the followings:

- Body mass index: 28.62
- Menopausued with four normal vaginal de-

livery history

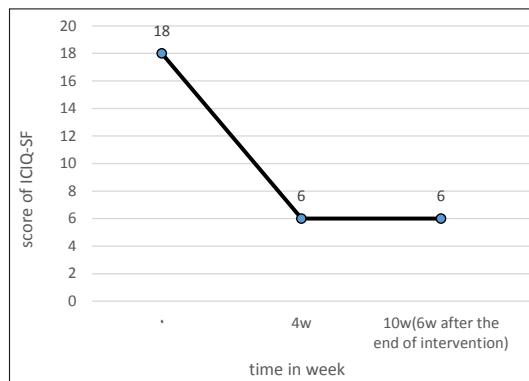
- Defecation: once a week, always stiff with straining, with getting help from hand and feeling of incomplete defecation, feeling of blockage in the anus and rectum area.
- Habits: three meals a day, not exercise, sometimes she used salad and yogurt during her meals
- Obsession to washing and excessive exposure to water.
- No history of urinary tract infection leading to the symptoms of UI.
- Coldness in palpation of the lower abdomen area.

### *Therapeutic measures*

The patient was sitting for 4 weeks on a flat, non-porous gray marble stone with a dimension of 30\*30 cm, wearing cotton pants for 30 minutes. The seat was warmed up at 10 AM in summer for 30 minutes with the sunlight.

### *Treatment results*

After 4 weeks, the patient’s symptoms changed based on the mentioned questionnaire as follows: The volume of urinary leakage was reduced to moderate level and episodes of urinary leakage were reduced to 2 to 3 times a month. Involuntary urination, which was happening spontaneously without reason, totally disappeared. According to the questionnaire, reduction of the scores of the disease was 66.66 percent. In the follow-up 6 weeks after the treatment, there was no recurring symptom. (Figure 1). Also the patient’s constipation was cured as a daily defecation once a day with no stiffness.



**Figure 1:** Assessing the changes in severity of urinary incontinence of the patient based on ICIQ-SF questionnaire

## Discussion

Moreover to oral medications and surgery, other various treatment methods, such strengthening the pelvic and bladder organs with physiotherapy, pelvic exercises and vaginal muscle stimulator electrodes are used in the treatment of female UI [7-9]. In Persian Medicine, all the mentioned methods reduce the area coldness and humidity by creating warmth [10]. Treatment principles in Persian Medicine has three major sections: lifestyle reforming, topical and oral medications, manual therapies [10,11]. Since the resulting coldness and wetness in the bladder is the main cause of female UI, topical heating (warming) treatments with mechanism of therapy with opposite quality, i.e., the use of heat to resolve coldness [10], can reduce the cold temperament and remove the occurred moisture on the bladder [12]. Amongst topical heating methods include oils such Qust oil [10] and Lilium oil [13] or put heating pad on the organ, for instance a hot salt bag [13]. Also in primitive various studies of conventional medicine, keeping warm body to maintain body temperature of patients, prevention of shivering and supplying their comfort in different situations such after surgery has been considered [14]. In one study using a combination of thermal therapy on forty-four patients with polymyalgia rheumatica for twelve weeks showed

that this method has been effective to improve the patient's pain, symptoms and quality of life [15]. Researcher's consideration in the use of hyperthermia treatment planning in the pelvic area in some noticeable pelvic malignancies is remarkable [16]. In another study using heating procedures in benign prostatic hyperplasia in patients who have contraindications for surgical treatment lead to reduction of symptoms [17].

In this case:

- 1- We want to warm-up the bladder from the perineal area by contact with a hot stone. Therapeutic proceedings in the perineum area is recommended for various diseases in Persian Medicine [18].
- 2- Increasing the number of contacts and days can lead to complete remission.
- 3- Constipation remedy and weight loss in the patient can help improving the patient's treatment process. Constipation and obesity are as risk factors for UI in women [19] and is effective in the incidence of UI by creating pressure effect on the bladder in Persian Medicine view [13]. Besides that one of the constipation mechanisms in Persian Medicine is the coldness of intestines [10], perineal heating has resolved constipation with heat transferring.
- 4- Obesity is also a cause for body cold nature, and very obese people are experiencing extremely cold temperament [13, 18]. However, severe obesity disrupts the bladder's natural actions by bladder pressing caused or aggravated UI [20].
- 4- Compulsive washing of the patient increases the coldness and moisture in the body and bladder that exacerbates UI [18].
- 5- Lack of exercise in the patient's lifestyle is also cools the body then exercise should be considered as one of the methods to warm the body and bladder [18].

## Conclusion

Regarding the relationship between etiologies

of diseases in two views of conventional medicine and Persian Medicine, we can establish an easier, faster and safer method for the treatment of diseases such topical treatments used in bladder diseases in Persian Medicine. It is suggested to designing studies that accelerate effect of treatment in patients and reduce the cost and side effects.

## Conflict of Interests

The authors of this article have no conflict of interest in the publication of the article.

## Acknowledgements

The authors would like to appreciate the cooperation of the patient and her family for participation and completion of treatment, also thankful to all nurses of Health House of School of Iranian Traditional Medicine, Tehran University of Medical Sciences, for performing the treatment processes.

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