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Efficacy of Unani Therapeutic Interventions in Pediatric Nocturnal Enuresis (Bawl fi'l Farāsh): A Case Series

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ABSTRACT

Background: Bawl fi'l Farāsh (nocturnal enuresis) is a common pediatric disorder associated with significant clinical and psychosocial consequences. Longitudinal studies indicate that nearly 20% of children in early school years' experience occasional nocturnal enuresis, while approximately 4% have bed-wetting episodes two or more times per week. The condition is more prevalent in boys than in girls; population-based studies from the United States report prevalence rates of 9% and 7% among boys aged 7 and 10 years, respectively, compared with 6% and 3% among girls of the same age groups. In India, the prevalence of nocturnal enuresis ranges between 7% and 12.6%. According to Unani medical principles, the condition arises from the predominance of **Ruṭūbat** (excessive moist temperament), leading to **Istirkhā'-e-A'ḍā' of Mathana** (laxity of urinary bladder musculature).

Methods: A prospective case series was conducted on five pediatric patients diagnosed with primary nocturnal enuresis at the Pediatrics (Unani) OPD of Majeedia Unani Hospital, New Delhi. Comprehensive clinical evaluation ruled out congenital anomalies and organic pathology. Patients were treated with Unani pharmacotherapy along with structured behavioral counseling for a duration of eight weeks. Psychosocial and family histories were also assessed.

Results: All patients demonstrated significant clinical improvement during the treatment period. Complete remission of bed-wetting episodes was observed in all cases by the end of eight weeks. No adverse effects related to the therapy were reported. A family history of psychological stress was noted in several patients.

Conclusion: This case series suggests that Unani therapeutic interventions, combined with behavioral counseling, are safe and effective in managing primary nocturnal enuresis and may substantially improve the quality of life in affected children

Keywords: *Bawl fi'l Farāsh, Nocturnal enuresis, Unani medicine, Ruṭūbat, Behavioral counseling.*.

1. INTRODUCTION

Nocturnal enuresis, commonly known as bed-wetting and termed Bawl fi'l Farāsh in Unani medicine, is a prevalent pediatric condition with notable medical and psychosocial consequences. [1] Epidemiological studies indicate that nearly 20% of early school-aged children experience occasional bed-wetting, while approximately 4% have frequent episodes. The condition is more common in boys than in girls, with reported prevalence rates of 9% and 7% among boys aged 7 and 10 years, respectively, compared with 6% and 3% among girls [2]. In India, the prevalence of nocturnal enuresis ranges between 7% and 12.6%. The International Children's Continence Society classifies enuresis into monosymptomatic and non-monosymptomatic types. Monosymptomatic enuresis occurs without daytime lower urinary tract symptoms, whereas the non-monosymptomatic form is more frequently associated with subtle daytime voiding disturbances. [3,4] Enuresis is further categorized as primary or secondary, with secondary enuresis defined as recurrence after at least six months of sustained dryness. Despite differing onset patterns, both forms share similar clinical features, suggesting common underlying mechanisms. The etiology of nocturnal enuresis is multifactorial and includes impaired arousal from sleep, nocturnal polyuria, reduced functional bladder capacity, psychological stress, genetic predisposition, and hormonal and bladder dysfunctions [5]. The condition can significantly affect a child's emotional well-being, often leading to low self-esteem,..

social withdrawal, and family distress [6]. According to Unani principles, nocturnal enuresis is a subtype of Salās al-Bawl resulting from excessive Burūdat and Ruṭūbat, leading to Istirkhā'-e-Aḍala-e-Mathāna (laxity of bladder musculature) and loss of urinary control during sleep. Classical Unani texts describe both pharmacological and behavioral approaches for its management, emphasizing compound formulations such as Balooti and Majoon Sangdana Murg

In unani medicine, *Bawl fi'l Farāsh* is described as a subtype of *Salas al-Bawl*. The cause of this condition is *istirkha-e-azlat-e-masana* (laxity of the bladder muscles). It is commonly observed in children because of the predominance of *rutubat*, due to which the tissues are easily relaxed. Owing to excess *rutubat* in the brain, children fall into deep sleep and remain unaware of the passage of urine. The act of micturition takes place through the involvement of two *quwa*: *Quwwat-e-Dafiya-e-Iradi* and *Quwwat-e-Dafiya-e-Tabay*. Both *quwwat* become weak in case of this condition, which results in bed wetting and daytime enuresis. In *Jamiul hikmat* hakeem mohammad husain qarshi described management of *Bawl fi'l Farāsh Ibtidayi* Such *as Halela siyah, Post Halela Qabli, Kath Safed, Juft Baloot, Kundur, Saalab Misri, Qaharbay Shamai, Habbul Aas, Murmuki, Kundru, Aqaqiya, Tukhm khatmi, Tukhm Alsi, Halela Qabli* indifferent forms [7,8].

2. CASE SERIES REPORT

A case series of five pediatric patients diagnosed with primary nocturnal enuresis was conducted at the Outpatient Department of Pediatric (Unani), Majeedia Hospital, Jamia Hamdard, New Delhi. The study included three male and two female children aged between 6 and 9 years, all presenting with a persistent history of nocturnal enuresis; some also reported increased daytime urinary frequency. All children had bed-wetting since early childhood. Guardians reported that the children had previously undergone behavioral and conservative treatments, including fluid restriction, bladder training, and motivational therapy, for one to two years, without satisfactory improvement. The prolonged nature of the condition had resulted in social limitations, including avoidance of overnight stays and gatherings, negatively affecting the children's emotional well-being. Clinical examination revealed that all patients were physically healthy, with normal growth and developmental milestones. Neurological and systemic examinations were unremarkable. However, feelings of embarrassment, guilt, and reduced self-confidence related to bed-wetting were observed in most children. Antenatal histories were normal for all patients, and no maternal complications during pregnancy or delivery were reported. All children were breastfed during the first six months of life, followed by formula or supplementary feeding. None of the patients had congenital anomalies, urinary tract infections, constipation, or a positive family history of enuresis. A family history of psychological stress was noted in three cases. Recurrent respiratory infections were reported in four patients during early childhood, for which both allopathic and Unani treatments had been previously administered. Based on clinical evaluation and exclusion of organic pathology, all five children were diagnosed with primary nocturnal enuresis and subsequently enrolled for Unani therapeutic management. Patient Demographics and clinical profile are presented in **Table no 1**.

All five patients were treated with Unani pharmacotherapy along with behavioral counseling for eight weeks. Given Intervention has been shown in **Table no. 2.** Ingredients of the formulation, i.e., *Balooti, Majoon sangdana Murg* has been shown in **Table no. 3.**

Table no 1: Patient Demographics and Clinical Profile

Patient	Age (yrs)	Sex	Bed-wetting duration	Daytime symptoms	Family history of stress	ICCS classification	Primary/Secondary
1	7	M	Since infancy	Frequency	Positive	Monosymptomatic	Primary
2	8	M	Since infancy	None	Negative	Monosymptomatic	Primary
3	6	M	Since infancy	Frequency	Positive	Non-monosymptomatic	Primary
4	9	F	Since infancy	None	Negative	Monosymptomatic	Primary
5	7	F	Since infancy	Frequency	Positive	Non-monosymptomatic	Primary

Table 2: Interventional therapy

S.NO	DRUG	DOSE	ADMINISTRATION
1.	Majoon Sangdana Murgh	5-7gm	Once in a day Orally Morning
2.	Balooti (Hamdard)	5-7gm	Once in a day Orally at Bedtime
3.	Behavioral measures		Fluid and diet management Regular daytime voiding schedule Motivational therapy and reinforcement Bladder training exercises

Table no. 3: Ingredients of the given formulation i.e *Balooti, Majoon sangdana Murg*

MAJOON SANGDANA MURG [9]		
S.NO	**INGREDIENTS**	**QUANTITY**
1.	*Gule-e-surkh*	100gm
2.	*Post-e-sangdana murg*	90gm
3.	*Tabasheer*	90gm
4.	*Behman Safaid*	70gm
5.	*Behman Surkh*	70gm
6.	*Sandal Surkh*	70gm
7.	*Sandal Safed*	70gm
8.	*Satar Farsi*	70gm
9.	*Kishneez Khusk Biryani*	70gm
10.	*Habb-ul-Aas*	70gm
11.	*Pudina Khusk*	45gm
12.	*Post-e-Berun-e-Pista*	45gm
13.	*Post-e-Turanj*	45gm
14.	*Post-e-Halela Zard*	45gm
15.	*Asal or Qand Safaid*	3kg
HAMDARD BALOOTI		
S.NO	**INGREDIENTS**	**QUANTITY/5gm**
1.	*Tukhm Bhang*	0.3gm
2.	*Juft Baloot*	0.3gm
3.	*Kundur*	0.5gm
4.	*Mastagi Roomi*	0.1gm

5.	*Qand Safaid*	3.3gm

Intervention therapy

Patients were instructed to follow the regimen consistently, and caregivers were counseled regarding lifestyle modifications and emotional support.

Assessment Criteria

Patients were evaluated using graded severity of clinical symptoms as **severe (+++), moderate (++)**, or **mild (+).**

Frequency: Graded as severe (≥3 bed-wetting episodes/week), moderate (2/week), or mild (1/week).

Urgency: Assessed using the **Urgency Numeric Rating Scale** and categorized as severe, moderate, or mild.

Social Distress: Evaluated using the **Social Avoidance and Distress Scale** and graded accordingly.

School Functioning: Assessed through a questionnaire-based evaluation and graded as severe, moderate, or mild.

Pre and Post Treatment Comparison

The figure shows a comparison of mean severity scores at baseline and follow-up for Frequency, Urgency, Social Distress, and School Functioning. Severity grading was semi-quantitatively assessed as +++ (severe), ++ (moderate), and + (mild). As shown in **Table no.4.**

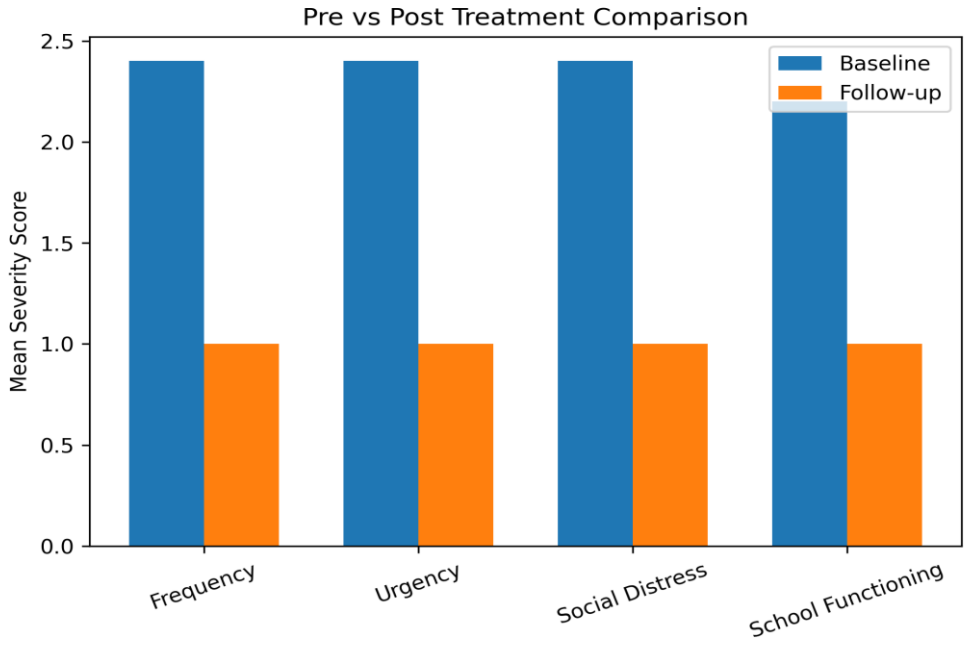
Overall, a marked reduction in symptom severity was observed across all domains at follow-up, indicating significant clinical improvement is shown in **Graph 1.**

3. RESULTS

All five patients demonstrated significant improvement in nocturnal enuresis by the end of 6–8 weeks of treatment as shown in **Table no.4**. Complete remission of bed-wetting was observed in four patients, and marked reduction in frequency was seen in one patient by the end of the treatment period. Daytime urinary symptoms, where present, also improved significantly. No adverse effects or complications were reported during the treatment period. Psychological well-being improved, with children reporting increased confidence and participation in social activities.

Table no. 4: Severity of clinical symptoms

Patient	Frequency Baseline → Follow-up	Urgency Baseline → Follow-up	Social Distress Baseline → Follow-up	School Functioning Baseline → Follow-up
P1	+++ → +	+++ → +	+++ → +	+++ → +
P2	+++ → +	++ → +	++ → +	++ → +
P3	++ → +	++ → +	+++ → +	++ → +
P4	+++ → +	+++ → +	++ → +	++ → +
P5	++ → +	++ → +	++ → +	++ → +



Graph 1: Pre and post-treatment comparison graph

Follow-up

Patients were followed up at 1 month and 3 months after treatment completion. Sustained improvement was noted in all cases, with no relapse of nocturnal enuresis or new urinary symptoms. Families reported improved quality of life and reduced emotional distress associated with bed-wetting. Long-term behavioral counseling and regular monitoring were advised to maintain the therapeutic benefits

4. DISCUSSION

In the Unani system of medicine, *Majoon Sangdana Murgh* is a classical formulation indicated in *Bawl fi'l Farāsh* (nocturnal enuresis) and urinary incontinence. Its chief ingredient, *Sangdana Murgh*, possesses Qābiḍ (astringent) and *Muqawwi-e-A'ḍā* properties, which help strengthen the *Aḍala al-Mathāna* (bladder musculature) and improve sphincter control. Classical Unani texts describe its role in reducing involuntary urination by enhancing neuromuscular tone and bladder stability [**9**]. Similarly, **Hamdard Balooti**, which contains *Juft-e-Baloot* (*Quercus incana*) and *Mastagi* (*Pistacia lentiscus*) as its principal ingredients, is well recognized in Unani medicine for its potent ***Qābiḍ*** (astringent), ***Mujaffif*** (desiccant), and ***Muqawwi-e-Mathāna*** (bladder-strengthening) actions. It is traditionally prescribed for conditions characterized by excessive urination and urinary incontinence associated with muscular laxity of the urinary bladder. *Mastagi* contains several bioactive constituents that may be correlated with its therapeutic role in nocturnal enuresis through indirect pharmacological mechanisms. Although it does not contain true alkaloids with hormone-like activity, its major constituents, particularly terpenoids such as α-pinene, β-pinene, terpinen-4-ol, α-terpineol, and germacrene D, exhibit neuro-modulatory, anti-inflammatory, and smooth-muscle–modulating properties. These actions may contribute to improved bladder tone, reduced detrusor irritability, and enhanced neuromuscular control of micturition. Additionally, anthocyanins such as cyanidin-3-O-arabinoside and delphinidin-3-O-glucoside provide antioxidant support that may help maintain tissue integrity and functional stability of the urinary bladder [10]. *Quercus incana* is rich in diverse bioactive compounds, including tannins, flavonoids, phenolic acids, and triterpenoids. Other species of the *Quercus* genus have been reported to contain constituents such as β-sitosterol, friedelin, quercetin, palmitic acid, terpenoids, coumarins, lignoceric acid, leucoanthocyanidins, and reducing sugars. These phytochemicals are associated with a wide range of biological activities, notably **astringent, desiccant, antimicrobial, antioxidant, anti-inflammatory, and urinary-modulating effects**, which collectively support the traditional use of *Juft-e-Baloot* in urinary disorders. According to Unani literature, *Ḍu'f-i-Dimāgh* is a major etiological factor in bedwetting, leading to *Istirkhā'-e-A'ḍala,* including relaxation of bladder muscles. The combined use of *Majoon Sangdana Murgh* and *Hamdard Balooti* helps restore bladder tone, improve sphincter competence, and reduce involuntary urination, thereby offering effective management of nocturnal enuresis.

5. CONCLUSION

Bawl fi'l Farāsh nocturnal enuresis is a common pediatric condition that adversely affects a child's self-esteem and is often

associated with social stigma. Reassurance and appropriate counselling of both the child and parents, along with pharmacological intervention, constitute the cornerstone of management. The Unani system of medicine, with its holistic therapeutic approach, holds considerable potential in the management of *Bawl fi'l Farāsh Ibtidayi* and in improving the overall quality of life of affected children. This case study may further contribute to the development of more structured and evidence-based clinical trials in the future.

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