

A CLINICAL STUDY ON THE EFFICACY OF JAMBOOBIJA VATI IN SHAYYAMUTRA (ENURESIS) W.S.R. TO NOCTURNAL ENURESIS

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ABSTRACT

Children in the modern age suffer at large due to physical problems; in addition to that they suffer from psychological problems too. The event leaves a lasting impression on the tender mind of children and later become the cause of behavioural or psychosomatic disease. Ancient scholars have also described *Shayyamutra* as psychosomatic origin. Enuresis is one of the obstinate problems. Enuresis is defined as the voluntary or involuntary repeated discharge of urine into cloth or bed after a developmental age when bladder control should be established. Due to this problem a lot of concealment and profound repercussions occur in family life, since a child's psychosomatic health and mothers pride involved with this problem. Therefore this study was planned keeping in mind the mental condition of parents as well as the children. For this, 60 patients of age group 6 to 10 years of both sexes were randomly selected from OPD of Hon. Shri. Annasahed Dange Ayurved Medical College, Post graduate & Research Center, Ashta, Sangli, Maharashtra and divided into two groups, i.e. 30 in each group. *Jamboobija vati* 300-600mg (trial drug) was administered to 30 such children with counseling. Another set of 30 children was administered with wheat flour *vati* 300-600mg (placebo drug) with counseling. All children were subjected to clinical signs and symptoms, before treatment and 2 month after treatment. The study has proved that efficacy of the trial drug along with counseling is found to be effective for *Shayyamutra*.

Keywords: *Shayyamutra*, Enuresis, Counseling

INTRODUCTION

Kaumarbhritya emerged as an independent medical specialty right from the dawn of civilization. This evolutionary development was the result of increasing awareness among the health professionals that, the problems of children differ considerably from those of adults and from the point of view of medical therapeutics, "A child cannot be considered as miniature adult".

Children health needs great care as their physical and mental status helps them to build the future as well as nation. Parents and

family members are frequently stressed by child's bedwetting. Soiled linen and clothing causes additional laundry. Wetting episodes can cause lost sleep if the child wakes and/or cries, waking the parents. A European study estimates that a family with a child who wets nightly will pay about \$1,000 a year for additional laundry, extra sheets, disposable absorbent garments such as diapers and mattress replacements¹.

The ancient scholars have described this obstinate health problem of children as

*Shayyamutra*². *Shayyamutra* (enuresis) is one of the quite common obstinate social problems whose etiology, clinical feature, pathogenesis and management part are not found vividly in the ancient texts. *Vangsen* has noticed first the common complaints of *Shayyamutra* (enuresis) and mentioned its management in his text³. In this disease mainly *Vata* (*Apana vayu*), *Pitta* (*Pachaka pitta*), *Kapha* (*Tarpaka kapha*) along with *Manasika Dosha Tama* are involved (vitiated). *Dushya* involved in *Rasa* (*Ambu*) *dhatu*. Vitiating of *Mutravaha* and *Manovaha srotasa* is found in the form of untimely and increased frequency of urine at night. There is no description regarding *Nidana*, *Samprapti* and *Rupa* of *Shayyamutra* in text. It is considered as multifactorial behavioral disorder in contemporary medicine.

The drug selected for study *Jamboobija* (*Eugenia jumbolana*) is indicated as *Mutrasangrahaniya*⁴ by *Acharya Charaka* in his text *Charak Samhita*. Fluid intake may enhance bedwetting, so instead of syrup preparation *Vati* (tablet) preparation was selected in the present study.

Aims and Objectives

Aim: - To evaluate the efficacy of *Jamboobija vati* in *Shayyamutra*.

Objectives:-

1. To study the disease *Shayyamutra* both in Ayurved and modern aspects.
2. To study the etio-pathogenesis of enuresis in Ayurved and modern view.
3. To see the complication or side effect if any.

Material and Method

The present study was conducted to examine the efficacy of an *Ayurvedic* compound in decreasing frequency of bedwetting in *Shayyamutra* affected children.

For this study, we selected all affected children attending the OPD of the department of *Kaumarbhritya*, Hon. Shri. Annasahed Dange Ayurved Medical College, Post graduate & Research Center, Ashta, Sangli,

Maharashtra. Only children between 6 to 10 years were included in the study.

Selected patients were randomly divided into two groups, ensuring both the groups had children from various grades, schools and socioeconomic status.

Group A- This group of 30 children was given *Jamboobija vati* with counseling.

Group B- This group of 30 children was given Placebo drug i.e. Wheat flour vati with counseling.

The drug was prepared in the pharmacy of Hon. Shri. Annasahed Dange Ayurved Medical College, Post graduate & Research Center, Ashta, Sangli, Maharashtra

Study Design

Outpatient section of the department of *Kaumarbhritya* at Hon. Shri. Annasahed Dange Ayurved Medical College, Post graduate & Research Center, Ashta, Sangli, Maharashtra were selected as the research setting. The simple Randomized Controlled Trial (RCT) was the study design adopted the envisage the present research work. The subjects were selected and randomly divided into two groups, Group-A (Trail group) Group-B (Placebo group). 30 patients in each group. For the random selection of patients; Table of Random Number method was followed.

Inclusion Criteria

1. Subject irrespective of sex.
2. Subjects age group 6 to 10 years.
3. Cardinal feature of *Shayyamutra* without day time incontinence.
4. Repeated voiding of urine in bed or clothes at least 4-5 times in a week.

Exclusion Criteria

1. Patients below 6 years and above 10 years.
2. Patients having systemic disorder like TB, DM, and DI.
3. Patients with congenital anomalies or with anatomical defect in genital urinary system and UTI.

4. Neurodevelopmental disorders like MR, CP, Spina bifida and Seizures disorders.
5. Subject with worm infestation.
6. Patients on another treatment for same disease.

Time And Duration Of The Study

The duration of the study was 2 months.

Administration Of The Drug And Observation Of Patient

Each child of Group A was given 300-600 mg (According to dilling formula) of *Jamboobija vati* (twice a day before meal) for 2 months with counseling. Each child of group B was given 300-600mg (According to dilling formula) of Wheat flour *vati* (twice a day before meal) for 2 months with counseling.

Parents Instructions / Counseling

1. A long list of etiological factors- ice cream, cool drinks, chocolate, toffee, butter milk, excessive water intake etc. were strictly avoided from routine.
2. Serve dinner to child before 8:00 pm.
3. Asked child to go to bed before 9:30 pm.
4. Habit of watching television till ate night was also condemned.

5. Liquids like butter milk, cold coffee or tea, juice, ice cream; were strictly avoided especially after dinner.
6. Excessive quantity of water was limited after as well as during dinner.
7. Children should urinate before going to sleep.
8. Wake the child twice in the whole night and walk unaided to the toilet to urinate.

Significance Of Counseling

The most important reason for treating enuresis is to minimize the embarrassment and anxiety of the child and frustration experience by the parents. The main role of counseling is to give moral support to express his suppressed emotions and feeling. Parental counseling was done to give child emotional support, not to criticize and changing the bed wetting sheets without the child knowing. Also parents were asked for positive reinforcement for remaining dry at night. It gives encourage to child for dry nights by using gifts as a token of appreciation.

Parameters For Assessment

Table 1: Gradation of frequency of Bedwetting

Bedwetting frequency	Gradation	B.T	A.T
Normal micturation	0		
More than once a month	1		
One a week	2		
Twice a week	3		
More than twice a week	4		
Once daily	5		
More than once daily	6		

B.T-Before treatment; A.T-After Treatment

Result

Table 2: Statistical analysis of intergroup showing change in bedwetting frequency

Group	Mean			Median Diff.	n	Wilcoxon signed rank statistic	P- value
	B.T.	A.T.	Diff.				
Group A	4.83	1.80	3.03	3	30	465	< 0.001
Group B	4.76	3.97	0.80	1	30	253	< 0.001

B.T-Before Treatment; A.T-After Treatment; Diff-Difference

In group A, the mean bedwetting score before treatment was 4.83 which was reduced

to 1.80 after treatment. The median reduction observed was 3 which was significant (P-value

< 0.001) at 5% level of significance as suggested by Wilcoxon signed rank test. Thus it can be said that, *Jamboobija vati* is effective in reducing bedwetting frequency.

In group B, the mean bedwetting score before treatment was 4.76 which reduced to 3.97 after treatment. The median reduction

observed was 1 which was significant (P-value < 0.001) at 5% level of significance as suggested by Wilcoxon signed rank test. Thus it can be said that, significant placebo effect was observed in reducing bedwetting frequency.

Table 3: Statistical analysis of effect of therapy on reduction in bedwetting frequency

Group	Median diff.	Mean diff.	S.D. of diff.	N	Mann-Whitney U statistic	P- value
Group A	3	3.03	0.556	30	896	< 0.001
Group B	1	0.80	0.551	30		

Diff- Difference; S.D.-Standard Deviation

The median reduction in bedwetting score for group A was 3 with mean reduction equal to 3.03 (S.D. = 0.556). In group B, the median reduction was 1 with mean reduction of 0.80 (S.D. = 0.551). Using Mann-Whitney

U test, the reduction in bedwetting score for group A was significantly higher than that of group B (P-value < 0.001). Thus it can be inferred that, *Jamboobija vati* is significantly more effective than placebo in reduction of bedwetting frequency.

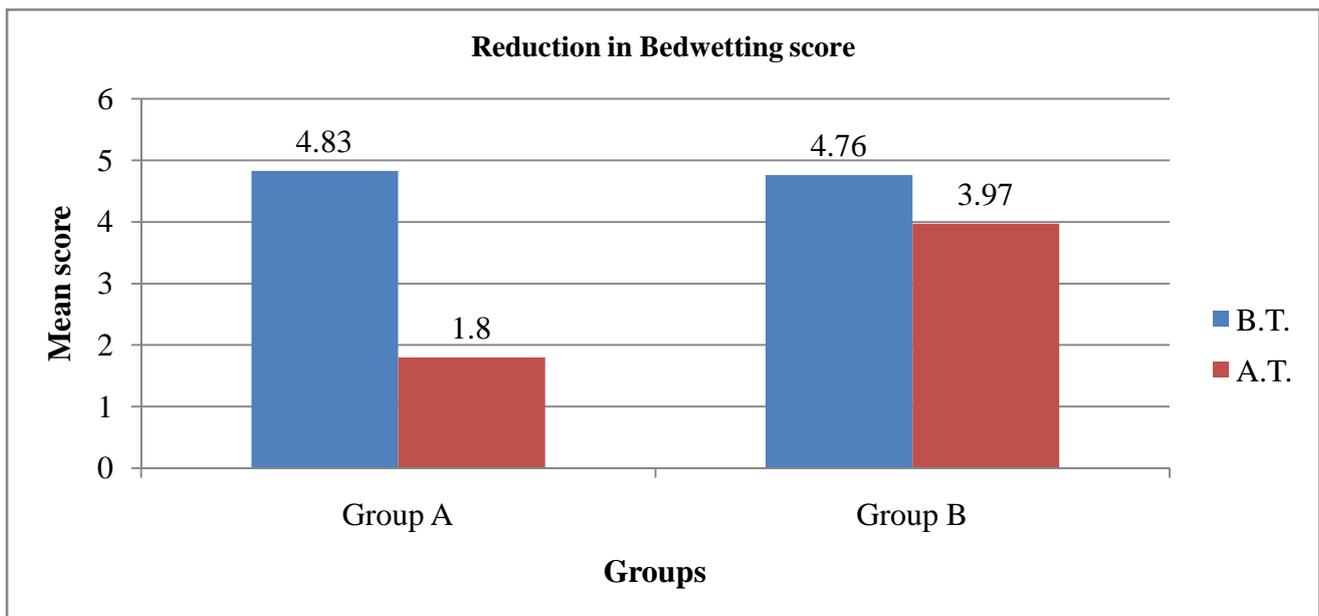


Figure 1: total effect of therapy on reduction in bedwetting frequency

DISCUSSION

Shayyamutra is considered to be shameful problem to our society. It causes shame both to child and parents. *Nidra* the sleep is *Tamomula* and *Tamomayi* induced by increase of *Tamas*- an invert universal attribute. So, it mainly exhausted state of mind

and body. It is generally seen in nights. The sleep induced by excessive increase of *Tamoguna* occurs at terminal stage of sleep, where *Tamoguna* and increased *Kapha Dosha* are involved. When *Kapha Dosha* occludes the sensory channels then the terminal sleep manifest. It is difficult for affected child in night to awake and go to the toilet.

In the present study the drug was selected from *Charak Samhita*. As per the

classical reference of the text, the drug is having *Kashaya Rasa* and *Madhura, Amla Anurasa; Katu Vipaka; Virya* is *sheeta* and having *Laghu, Ruksha Guna*. *Charak* have mentioned it as a *Mutrasangrahaniya* (herb that cause urine retention). Many researches are also available providing the drug as a highly effective oral antihyperglycemic and also as antihelminthic. This action further leads us to provoke its action on the cardinal symptoms of *Prameha* i.e. *Prabhuta* and *Avil Mutrata*. Thus a probable mode of action of this drug may be assumed on hypothetical basis as causing by action as *Mutrasangrahaniya*, or it may have the properties to reduce urine formation or it may arouse the child on having sensation of bladder fullness and thereby being effective in the present study.

Fluid intake may enhance bedwetting, so instead of syrup preparation *vati* (tablet) preparation was proven more beneficial in the present study.

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