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A Single Blind Clinical Study to Access the Role of Homoeopathic Constitutional Remedies in Primary Enuresis in Age Group of 5-15 Years

Un estudio clínico simple ciego para acceder al rol que tienen los remedios constitucionales homeopáticos en la enuresis primaria en un grupo de etario de entre 5 a 15 años

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ABSTRACT

Background: Enuresis is one of the most common problems in children hampering daily lives and studies. Homoeopathy can be used in enuresis, however not much research has been done regarding this. This study was aimed to investigate whether homoeopathic medicines have effect in the treatment of patients with primary enuresis.

Method: It is a randomized, single blind placebo control study, conducted at the outpatient department of Bharati Vidyapeeth (deemed to be university) Homeopathic college and research Centre, Pune. Total 45 patients enrolled, out of which 5 were dropped out and 40 completed trials with follow-ups. Outcome assessment was checked according to Likert scale and intensity of symptoms were recorded.

Result: The final outcome was reduction in number of wet nights per week, decreased in no of wet nights per day, decreased in associated symptoms of enuresis along with behavioural change in patients with primary enuresis after 12 -14 weeks of outpatient care. Analysis was done using student paired “t” tests and one sample “t” test. A significant improvement was observed after treatment and patients showed symptomatic relief as well. Mean reduction in intensity of symptoms in experimental group is 23.80, in control group was 9.05 after completion of study.

Conclusion: Constitutional Homoeopathic medicines produced significant effect in improving primary enuresis. Further studies with larger sample size and control group can provide a greater resource for proving that constitutional homoeopathic medicines have an effect in treatment in primary enuresis.

Keywords: Enuresis, Children, Homoeopathy.

RESUMEN

Antecedentes: La enuresis es uno de los problemas más comunes en los niños al dificultar la vida diaria y los estudios. La homeopatía se puede utilizar en la enuresis, sin embargo, no se han realizado muchas investigaciones al respecto. Este estudio tuvo como objetivo investigar si los medicamentos homeopáticos tienen efecto en el tratamiento de pacientes con enuresis primaria.

Método: Es un estudio aleatorio, simple ciego de control de placebo, realizado en el departamento de pacientes ambulatorios de la facultad y centro de investigación homeopáticos en Bharati Vidyapeeth (considerado universidad), Pune. Se inscribieron un total de 45 pacientes, de los cuales 5 abandonaron y 40 completaron ensayos con seguimientos. La evaluación de los resultados se verificó según la escala de Likert y, además, se registró la intensidad de los síntomas.

Resultado: El resultado final fue la reducción del número de noches con incontinencia por semana, la disminución del número de noches con incontinencia por día y la disminución de los síntomas asociados a la enuresis junto con un cambio de comportamiento en pacientes con enuresis primaria después de 12 a 14 semanas de atención ambulatoria. El análisis se realizó utilizando pruebas "t" de Student pareadas y una prueba "t" de muestra. Se observó una mejora significativa después del tratamiento y los pacientes también mostraron un alivio sintomático. La reducción media en la intensidad de los síntomas en el grupo experimental fue de 23,80 y, por otro lado, en el grupo de control fue de 9,05 después de la finalización del estudio.

Conclusión: Los medicamentos homeopáticos constitucionales produjeron un efecto significativo en la mejora de la enuresis primaria. Los estudios adicionales que posean un tamaño de muestra y un grupo de control más grandes pueden proporcionar un mayor recurso para comprobar que los medicamentos homeopáticos constitucionales tienen un efecto en el tratamiento de la enuresis primaria.

Palabras clave: Enuresis, niños, homeopatía.

INTRODUCTION

The term enuresis refers to the occurrence of involuntary voiding of urine after the age at which voluntary bladder control has been achieved. Enuresis can be diurnal or nocturnal. During waking hours lack of bladder control is generally seen.[1] It is not considered abnormal if it occurs less than twice a week. After several years of potty training, some children occasionally wet themselves because they worry about playing and delay emptying the bladder. Parental anxiety is a common cause of nocturnal diuresis. Nocturnal enuresis can be primary or secondary. Primary enuresis means the baby has never been able to control urination during the night. This is also called "persistent enuresis". Secondary or regressive enuresis means that the enuresis occurs after the baby has achieved normal bladder control. The persistent enuresis is the cause of the poor toilet formation. Parental quarrelsomeness, arrival of a sibling, or a own circle of relatives tragedy is the precipitating element for regressive enuresis.

A few things can cause bedwetting. Some of the more common causes of bedwetting include: genetics (tends to run in the family), difficulty waking up from sleep, stress, slower than normal central nervous system development which reduces the baby's ability to prevent emptying of the bladder at night, hormonal factors (not enough antidiuretic hormone is produced, which is the hormone that slows urine production at night),

abnormalities urethral valves in boys or ureter in girls or boys, spinal cord abnormalities, urinary tract infections and a small bladder[2]

Nocturnal enuresis is a disorder in which episodes of urinary incontinence occur during sleep in children aged ≥ 5 years. Over 85% of children achieve day and night bladder control by age 5. The remaining 15% gain continence at about 15% per year, so that in adolescence only 0.5% to 1% of children suffer from bedwetting. Prevalence rates of bedwetting vary from 3.5% to 56.4% in different geographic regions and countries.[3]

Primary enuresis (75% to 90%) occurs when a child has never established bladder control. Secondary enuresis (10% to 25%) occurs when a person has established bladder control for 6 months, then relapses and begins wetting. Nocturnal enuresis can be divided into the following three subtypes based on the time of onset: nocturnal (i.e. during sleep), diurnal (i.e. during working hours) waking) and night and day hours.[4] Primary nocturnal enuresis is caused by a disparity between bladder capacity and nocturnal urine output and the infant's inability to wake in response to a full bladder. A variety of medical and psychological disorders are associated with secondary enuresis such as bladder dysfunction, constipation, diabetes mellitus, hyperthyroidism, obstructive sleep apnea, pinworm infestation, and psychological distress. Studies suggest an association between sexual abuse and bedwetting.[5,6]

Secondary bedwetting (10% to 25%) occurs when a person has established bladder control for 6 months, then relapses and begins wetting. Nocturnal enuresis can be divided into the following three subtypes based on time of onset: during waking hours, during sleep and diurinal. A variety of medical and psychological disorders associated with bedwetting is a disorder in which episodes of urinary incontinence occur during sleep in children aged ≥ 5 years.[7] Over 85% of children achieve full bladder control day and night by age 5. The remaining 15% gain continence at about 15% per year, so that by adolescence only 0.5% to 1% of children suffer from bedwetting. Prevalence rates of bedwetting vary from 3.5% to 56.4% in different geographic regions and countries.[8]

According to different criteria to the diagnosis of nocturnal enuresis. How frequent should the bedwetting be to talk about clinically significant enuresis-several nights per week, 1 night per week, 1 night per month? Rather surprisingly, very few investigators have asked the children themselves and their families what they believe is a significant problem. When this is done, the answer is that the child's bedwetting is perceived as a dilemma as long as the child cannot predict with any certainty that he or she will wake up in a dry bed every morning.[9]

Enuresis is considered a multifactorial entity with a strong genetic component that may be influenced by comorbidities and immaturity of the central nervous system bladder control mechanisms. Studies show a 44% chance of enuresis in children with one affected parent and 77% in those with two affected parents. [10] Once thought to play a causal role, psychological or psychiatric factors are now considered to be either a consequence of enuresis or comorbidity. Other Conditions associated with nocturnal enuresis include: Constipation, Urethral obstruction, Ectopic ureter Cystitis, Diabetes insipidus, Disorders of sleep arousal, Small bladder capacity, Overactive bladder. Among the basic factors resulting in nocturnal enuresis, the fundamental one is that the bladder fills to its functional capacity during sleep, i.e., the bladder needs to empty itself. The reasons why the bladder gets full is nocturnal polyuria and or a reduction of the bladder capacity because the bladder muscle is

not properly relaxed during sleep. If the child wakes up, he will leave the bed and walk to the toilet for a voiding at the proper place, that is nocturia occurs.[11] If the child does not wake up. the micturition reflex will be elicited during sleep and the child will void in the bed, that is enuresis occurs. Nocturia is equally common as nocturnal enuresis in childhood. Thus, since 10-20% of all school children need to void during the night, a bladder becoming filled to capacity during the hours of sleep can be looked upon as normal physiology in child. The incisive difference between the socially acceptable nocturia and the socially unacceptable enuresis, respectively, is whether the child brakes up or not.[12] Why the bladder muscle is not properly relaxed during sleep, leading to a reduced bladder capacity, is most probably due to immaturity of the nerve control which normally keeps the bladder muscle at rest during the reservoir phase. The possibility exists that some enuretic children with a perfectly relaxed bladder during the day lose some of this control during sleeping hours.[13]

The bladder will be filled to capacity prematurely if its muscle wall is not properly relaxed. But the most common reason for a full bladder during sleep in an enuretic child is probably the failure to reduce the night-time urine production during sleep.[14] In the normal non-enuretic child up to the age of 10 y or so, there is a rise in plasma vasopressin during the night which will decrease the urine output. Most enuretic children in this age group fail to produce this normal nocturnal rise in plasma vasopressin. The result is a relative nocturnal polyuria that is a greater night-time urine production than the bladder can hold. ADH (vasopressin or antidiuretic hormone) exerts its action in the kidney's collecting tubes where the primary urine undergoes its final concentration by water being drawn out of the tubes to the surrounding tissue. ADH concentrates the urine by opening "holes", in effect aquaporin 2-channels, in the walls of the collecting tubes. [15]

Finally, the great enigma in enuresis pathophysiology: the question about sleep and arousal. Parents of enuretic children are almost unanimous in stating that their children are "close to impossible to wake up".[16] However, attempts to validate this opinion of parents have been largely unsuccessful. Several polysomnographic studies have been unable to find any fundamental difference between the sleep pattern of enuretic and that of non-enuretic controls. As always in such cases, the burden of proof lies heavily on the medical research workers. We must not refute the opinion of a majority of parents without very solid evidence, and we must question our scientific methodology before drawing conclusions that conflict with what the parents tell us. [17]

If the child's history is not clearly primary monosymptomatic NE, it is reasonable and recommended that the child be investigated further. Urinalysis (UA) can be obtained as a screening tool for possible medical conditions such as: infection, diabetes mellitus or insipidus.

If the UA results indicate possible infection, then urine culture is indicated. If the history and physical examination raised suspicion of urinary obstruction, structural abnormalities, recurrent infections, or significant daytime symptoms, a post-void residual volume (PVR) and bladder/kidney ultrasound should be obtained. [18]

The most important to exclude conditions before diagnosing enuresis include Bladder dysfunction from infection or neurological conditions, Incontinence due to anatomical abnormalities, and Polyuria secondary to diabetes mellitus, diabetes insipidus, excessive fluid or diuretic intake, or drugs.[19]

The history and detailed physical examination are key to diagnosing this condition. The initial step in the evaluation of nocturnal enuresis is obtaining a history. It is essential to determine whether the enuresis is primary or secondary, its pattern (number of episodes in one night and number of nights per week), and caffeine

and evening fluid intake. Also, it is just as important to determine the presence of nocturnal polyuria (elicited by asking the parents if the enuretic episodes involve large amounts of urine), polydipsia, dysuria, urgency, frequency, daytime incontinence, abnormal urinary stream, and constipation.[12] The child that has multiple voiding episodes of variable amounts of urine throughout the night can be presumed to have a component of an overactive bladder or one of small capacity. Other pertinent questions include family history of enuresis, history of recurrent urinary tract infections (which may point to underlying bowel or bladder dysfunction), sleep disorders, snoring or a diagnosis of sleep-disordered breathing, and the use of chronic medications, since some drugs, may be associated with secondary enuresis.[12]

This is supported by the fact that only half of parents seek medical attention for this condition, suggesting that the prevalence may be higher in the community than indicated by current documented figures. The purpose of this study was to assess the implications of the enuresis in children and their families, because this condition can be stressful for the whole family.

The DSM-5 criteria for diagnosing bedwetting are as follows:

• Repeated urination in bed or clothes, whether involuntary or intentional.

• The behaviour (a) occurs at least twice a week for at least 3 consecutive months or (b) causes clinically significant distress or social, functional, or academic impairment.

• The behaviour occurs in a child who is at least 5 years old (or has reached an equivalent level of development)

• The behaviour cannot be attributed to the physiological effects of a substance or other medical condition.

Primary enuresis (75% to 90%) occurs when a child has never established bladder control.

A detailed interview with the parents and the happy child helps uncover the history of the problem and the emotional triggers. It also includes other information such as the baby's fluid intake and urine output.

Is there a history associated with fever or dysuria? there is no worm infestation.

Physical examination should include examination of abdomen (check for distended bladder and rectal obstruction), rectum, genitals (identify signs indicative of sexual abuse that may cause secondary/persistent bedwetting), ears, nose and throat. Secondary nocturnal enuresis can be identified by testing serum glucose, urea nitrogen and creatinine levels and low levels of thyroid-stimulating hormone.[23]

Active treatment should be avoided in children under 6 years of age. The child should be reassured, and no punitive measures should be taken as this may harm his psychological development. The first line of treatment is usually non-drug and includes motivational therapy and the use of alarm devices. Alarm devices are used to trigger a conditioned arousal response to the sensation of a full bladder. Drug therapy should be given if bedwetting persists despite alarms and regular urination habits.[22] Desmopressin acetate (DDAVP) is the preferred concomitant drug for the treatment of children with enuresis. However, common side effects include headache, nausea, upset stomach or stomach pain, diarrhea or flushing (warmth, redness, and tingling sensation). DDAVP can rarely cause low blood sodium levels, which can be serious and potentially fatal.

Auxiliary treatment includes health education, environmental modification, life style and behavioural changes. It also includes diet chart, exercise, therapy, cleanliness, hygiene and health care. The following measures will be taken for enuresis patient: Offer an alarm as first line of treatment for enuresis- Alarms will be placed at particular times at night so that child goes and urinates at that time.

Advice fluid intake, diet and toilet pattern. Advice child and parents that consumption of caffeine-based drinks should be avoided in children with enuresis. Advice the child the importance of using toilet at regular intervals throughout the day. Offer advice on lifting and waking the child during the night as a practical measure in short term management of enuresis. Advice parents to offer rewards to the child when he agrees to changes such as drinking adequately, voiding before sleep and engaging in management. Counselling therapy such as social support, educating the child and parents about the condition will be done. Homoeopathic constitutional remedies are effective in the treatment of primary enuresis the in-age group 5-15 years.

MATERIALS AND METHODS

Design: This was a prospective clinical study with an interventional, single-blind, placebo-controlled method conducted based on the principles of the Declaration of Helsinki. The study was conducted at Bharati Vidyapeeth Medical Foundation Homeopathic Hospital, Katraj, Pune.

Inclusion Criteria: Patients of both genders who were older than 5 years but younger than 15 years were selected for the study. The diagnostic criteria were mainly based on the clinical picture and the enuresis questionnaire prepared by the author. Cases of functional primary enuresis have been focused. Patients who were willing to take the treatment regularly and who were cooperative were included in the study.

Exclusion Criteria: Primary enuresis due to irreversible pathological changes were excluded from the study. Enuresis with some other comorbid conditions, such as urinary malformations, renal disease, diabetes mellitus, spinal cord injuries and other neurological complications requiring other continuous treatment were excluded. Cases related to systemic disorders and complications are excluded.

Randomisation: Simple Randomisation was done for all age groups by using chits which were concealed.

Interventions: All selected medications were prescribed after the parents completed the questionnaire. The medicines were manufactured in standard homeopathic pharmacies that are GMP-certified according to the standards of the Homeopathic Pharmacopoeia (HPI). Potencies from 6C to 10M were used in the study. To minimize interaction, the children's parents were told to fill out the questionnaire and that they could contact the study team if they had any questions.

Outcome Measures: Patient assessment was done using the assessment scale & parent questionnaire prepared by the author. Duration of follow up was same for all the patients. Follow up was done between 15-30 days (1 month). Patient Assessment after starting the treatment

After starting the treatment, the following things were taken into consideration for every follow up:

No of times of enuresis per week.

Frequency of enuresis during daytime per day.

Any history of child waking up at night after micturition.

Any pain during urination.

Any constipation.

Any new changes after starting the medicine.

Any behavioural change after taking the medicine.

After the follow up of each case, the cases were categorized in one of the following three groups depending on the response to the treatment.

a) Marked improvement: Complete relief from enuresis.

b) Moderate Improvement: Partial relief from enuresis.

c) No Improvement: No relief from enuresis.

Each case was followed up for 6 months to assess the outcome results of the treatment. Study data was being collected at baseline, every follow up (monthly) and at final/termination visit. The patients were evaluated for symptomatic, clinical assessment, laboratory parameters and adverse events, if any, as per the study protocol.

Table 1- Intensity of symptoms score key for assessment after treatment

Intensity of symptoms	Symptoms Intensity Score
No	0
Mild	1 to 15
Moderate	15 to 25
Sever	25 to 35
Very Severe	35 to 45

Table 2- Improvement after homeopathic constitutional remedies

Not expected improvement	Mild improvement	Moderate improvement	Marked improvement
< 0	1 to 10	10 to 15	>15

Sample Size: 40 Cases were taken- 20 patients in experimental group which include homoeopathic constitutional remedies along with auxiliary line of treatment and 20 patients in the placebo control group which include placebo and auxiliary line of treatment. The cases are selected which fulfil the case definition & inclusion and exclusion criteria and those who want to participate willingly in the research.

Statistical Analysis

Average symptoms score values after intervention in control and experimental groups:

In control group, before auxiliary line of treatment symptoms intensity score was 24.65 ± 3.80, after auxiliary line of treatment intensity score reduced to 15.60 ± 3.12. To check the effectiveness of auxiliary line of treatment paired t-test was used. Test statistic value is 17.56 and p-value (0.000) is very small, it suggests that we reject H_0 and accept H_1 that is, auxiliary line of treatment helps in treating enuresis. In experimental group, before homoeopathic constitutional remedies along with auxiliary line of treatment; symptoms intensity score was 29.05 ± 4.75, after homoeopathic constitutional remedies along with auxiliary line of treatment; intensity score reduced to 5.25 ± 2.71. To check the effectiveness of homoeopathic constitutional remedies along with auxiliary line of treatment paired t-test was used. Test statistic value is 23.83 and p-value (0.000) is very small,

it suggests that we reject H_0 and accept H_1 that is, homoeopathic constitutional remedies along with auxiliary line of treatment helps in treating enuresis.

Table 3- Descriptive statistics of change in intensity score after in control and experimental group

Group	Mean ± SD	T-value	p-value	Decision
Control (n=20)	9.05 ± 2.31	-13.12	0.000**	Reject H_0
Exp. (n=20)	23.80 ± 4.47			

Average change in symptoms score after intervention in control and experimental groups: - Above table and graph shows that change in intensity score after intervention in control and experimental group. In control group, average change in intensity score after intervention was 9.05 ± 2.31 whereas in experimental group average change in intensity score after intervention was 23.80 ± 4.47. In both the groups after intervention intensity score was reduced but average change in intensity score is more in experimental group than control group. A homoeopathic constitutional remedy along with auxiliary line of treatment helps more in treating enuresis than only auxiliary line of treatment. To see the statistical significance; two sample t-test was used. Test statistic value is -13.12 and p-value (0.000) is very small, it suggests that we reject H0 and accept H1 that is, Homoeopathic constitutional remedies are effective in treatment of primary enuresis in age group 5-15 years. Homoeopathic constitutional remedy along with auxiliary line of treatment has more effect than only auxiliary line of treatment.

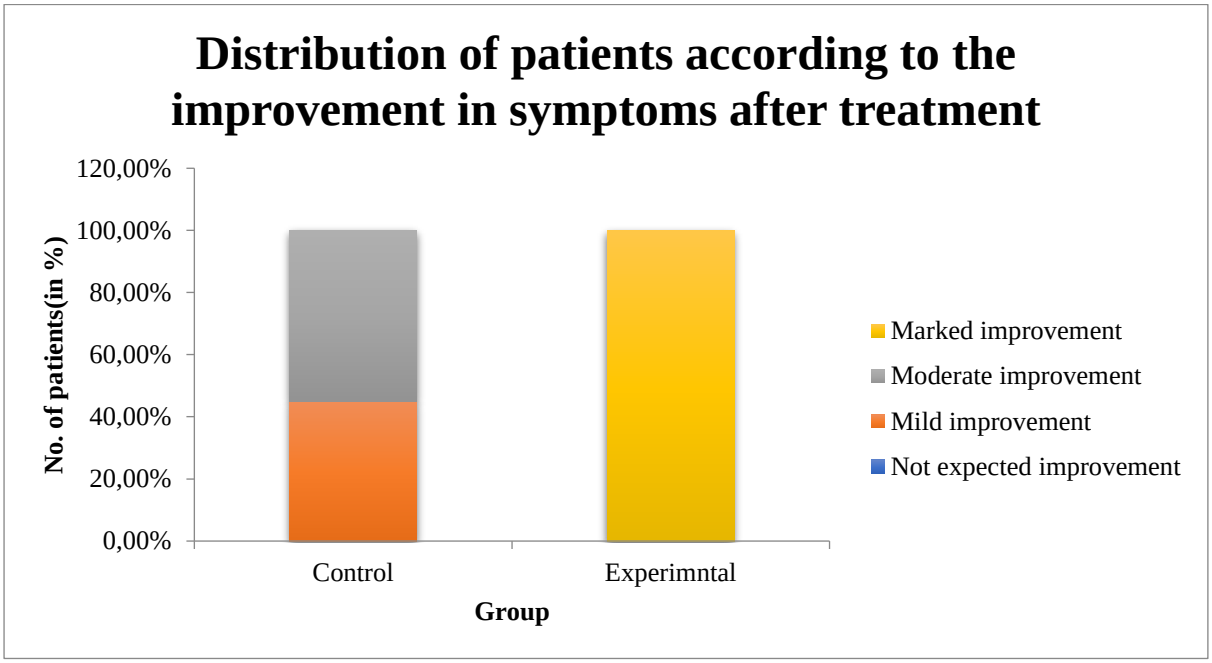

Figure 1- Distribution of patients according to the improvement in symptoms after treatment

RESULTS

Out of 40 patients, 10% of the patients had age 5yrs or 6yrs, 20% had age 7yrs or 8 yrs and 70% of the patients had age 9yrs for the control group whereas 5% of the patients had age 5yrs or 6yrs, 60% had age 7yrs

or 8yrs and 35% of the patients had age 9yrs or above for the experimental group. Distribution of patients according to gender showed that in control group 55% were boys and 45% were girls while in experimental group 70% were boys and 30% were girls. In control group 10% of the patients had age 5yrs or 6yrs, 20% had age 7yrs or 8yrs and 70% of the patients had age 9yrs or above while in experimental 5% of the patients had age 5yrs or 6yrs, 60% had age 7yrs or 8yrs and 35% of the patients had age 9yrs or above.

Outcome of all patients

The most commonly prescribed remedies were Ars Alb, Baryta Carb, Calcarea Carb, Calcarea Phos, Causticum, Chamomilla, Kreosote, Natrum Mur, Phosphorous, Pulsatilla, Silicea, Sulphur, Tarentula, Tuberculinum. The following criteria were checked after homeopathic prescription (table 4, fig 9).

Urgency of urination- The urgency in patients before the treatment was 40% in control group and 45% in experimental group. After homeopathic constitutional prescription the urgency reduced to 25% for control group and 10% to experimental group (fig 5).

Increased frequency of urination- Before treatment was 60% in control group and 40% in experimental group. After homeopathic remedies were prescribed the frequency substantially reduced for 10% in experimental group and 50% for control group (fig 6).

Sleep disturbance- Before intervention was 40% for control group and 45% for experimental group. After intervention, sleep disturbance was reduced for 10% in experimental group and 30% for control group (fig 4).

Constipation- The complaints of constipation or unsatisfactory stools were 20% for control group and 25% for experimental group. After intervention, constipation was reduced for 5% in experimental group and 20% for control group (fig 7).

Diurnal Enuresis before and after intervention- Diurnal enuresis 15% for control group and 20% for experimental group. After intervention, diurnal enuresis was reduced for 0% in experimental group and 15% for control group (fig 3).

Nocturnal enuresis before and after intervention- Marked improvement was seen in 12 patients whereas no improvement in control group. Moderate improvement observed in 4 patients of experimental group while 2 patients in control group. Mild improvement was observed in 3 patients of experimental group while 7 patients in control group. No poor improvement was seen in experimental group while 11 patients showed poor improvement in control group (fig 8).

Intensity of symptoms- In control group, before intervention 55% of the patients had severe symptoms and remaining 45% had moderate symptoms. After intervention 65% had moderate symptoms and 35% of the patients had mild symptoms. Whereas in experimental group, before intervention 20% of the patients had very severe symptoms, 60% had severe symptoms and 20% had moderate symptoms. After intervention all 100% of the patients had mild symptoms (fig 2).

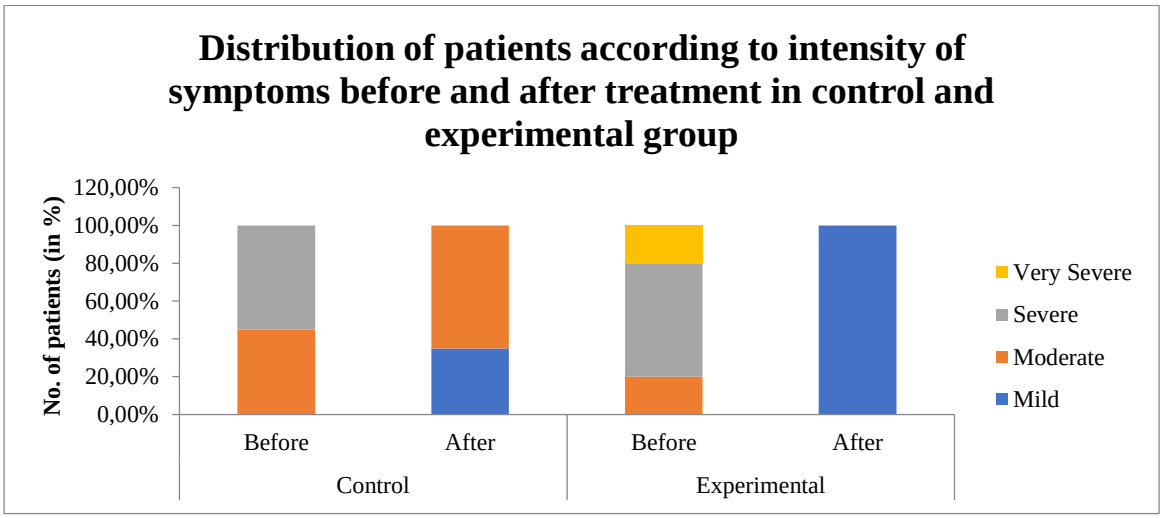

Figure 2- Distribution of patients according to intensity of symptoms before and after treatment in control and experimental group

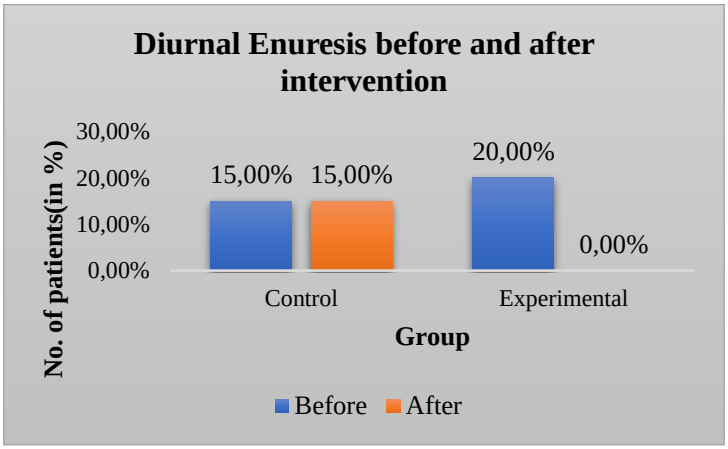

Figure 3- Diurnal Enuresis before and after intervention

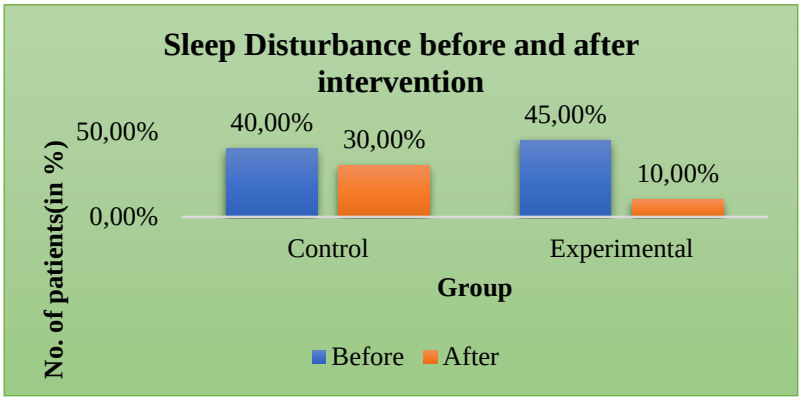

Figure 4- Sleep Disturbance before and after intervention

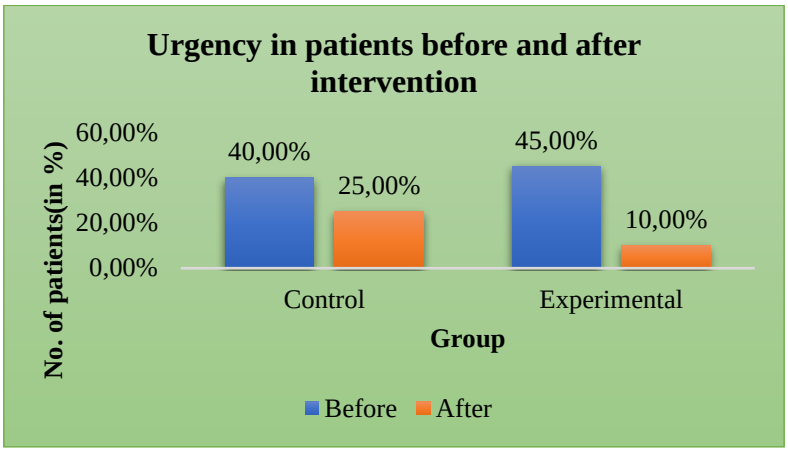

Figure 5- Urgency in patients before and after intervention

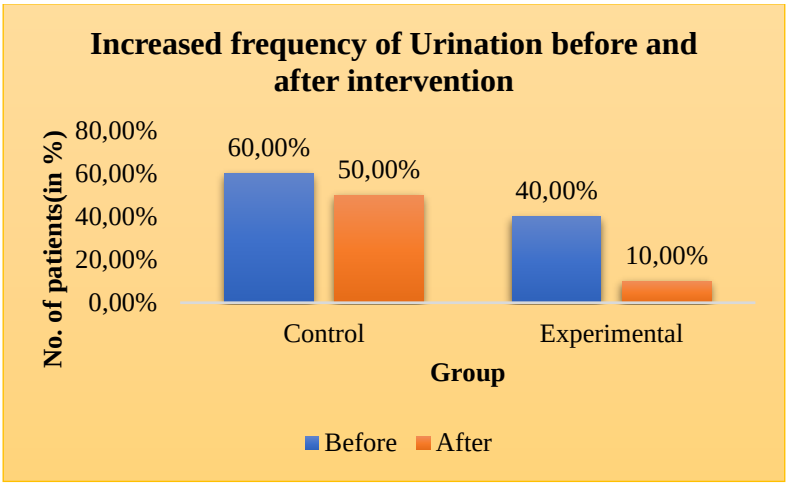

Figure 6- Increased frequency of Urination before and after intervention

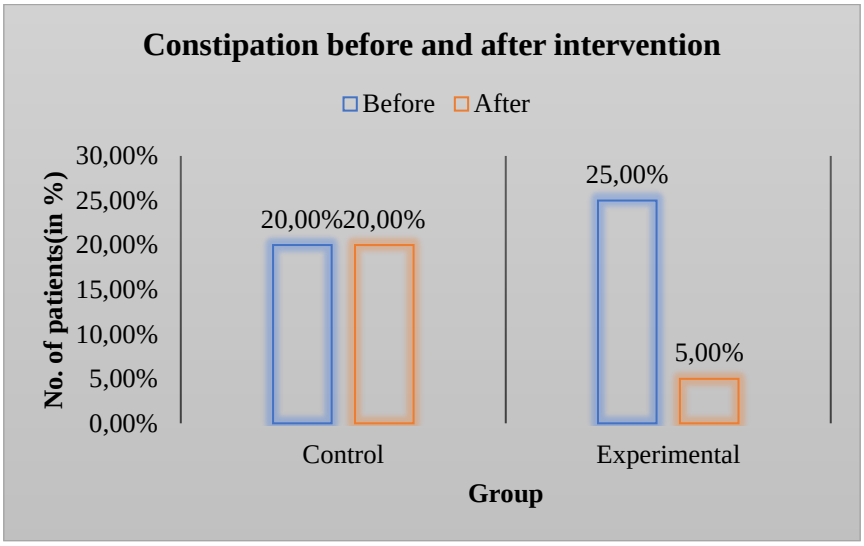

Figure 7- Constipation before and after intervention

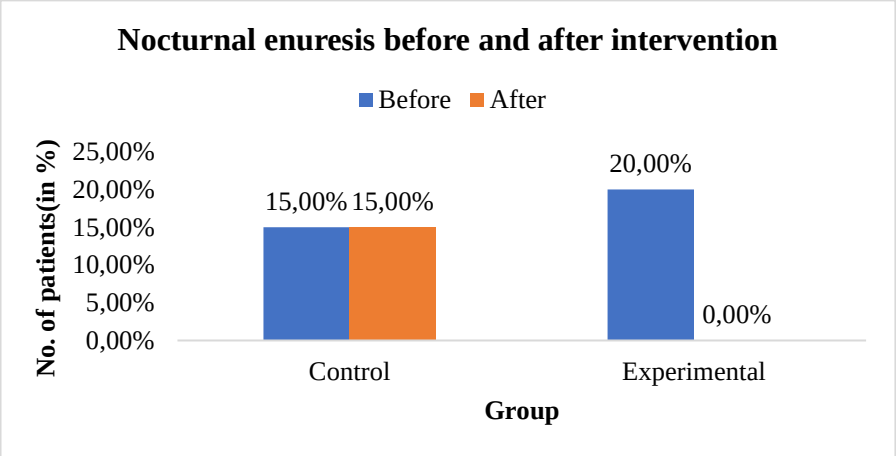

Figure 8- Nocturnal enuresis before and after intervention

Table 4- Distribution of patients according to medicine prescribed

Medicine Prescribed	Control(n=20)		Experimental(n=20)	
	f	*%*	*f*	*%*
PLACEBO	*20*	*100%*	*0*	*0.00%*
Ars Alb	0	0.00%	1	5.00%
Baryta Carb	0	0.00%	2	10.00%
Calcarea Carb	0	0.00%	2	10.00%
Calcarea Phos	0	0.00%	2	10.00%
Causticum	0	0.00%	2	10.00%
Chamomilla	0	0.00%	1	5.00%
Kreosote	0	0.00%	1	5.00%
Natrum Mur	0	0.00%	1	5.00%
Phosphorous	0	0.00%	1	5.00%
Pulsatilla	0	0.00%	3	15.00%
Silicea	0	0.00%	1	5.00%
Sulphur	0	0.00%	1	5.00%
Tarentula	0	0.00%	1	5.00%
Tuberculinum	0	0.00%	1	5.00%

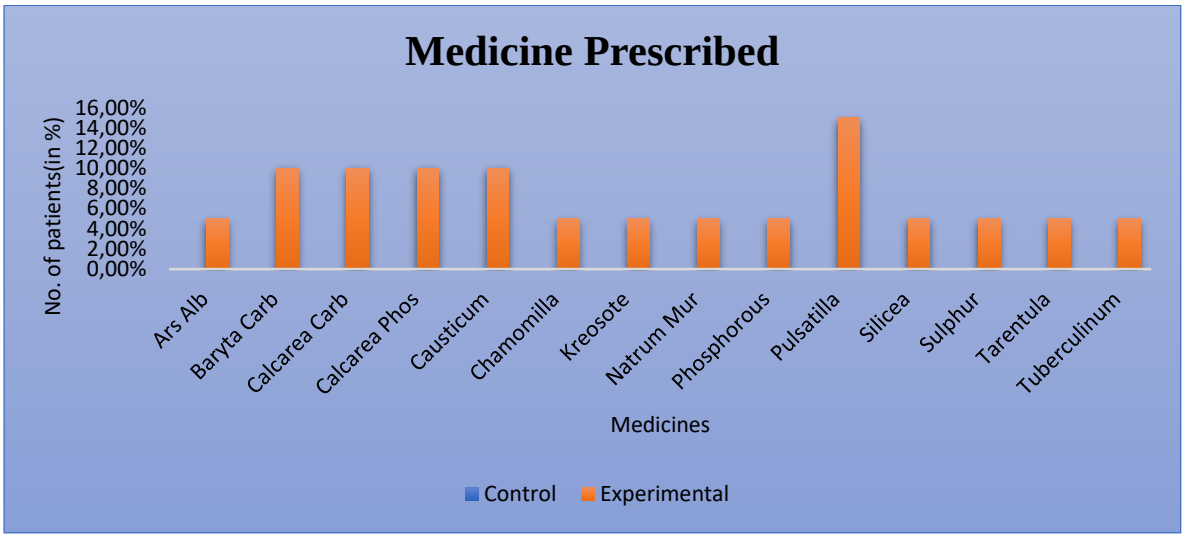

Figure 9- Medicines prescribed in the study based on homeopathic constitutional remedies

DISCUSSION

Enuresis is one of the most common and perplexing problems brought be noticed to physician. It is defined as 1) repeated involuntary urination day or at night 2) at least 2-3 such events per week for consecutive 3 months. The enuresis maybe primary (child may never achieved consistent dryness) or Secondary (child had a period of dryness at least for 6 months). The aetiology of enuresis is obscure and up to date no theory has approved, likewise with variety of treatments have tried. Primary or secondary (nocturnal or diurnal) presents a common problem for patients, parents and physicians without any definite aetiology and treatment. it was there decided to study in various aspects of enuresis and its association with mental behavioural, sleep patterns, constipation, social, intellectuals, sex, age, various stress and other factors. So, to deal enuresis with this approach Homoeopathy can be used. However more evidence-based data to be collected through research for strengthening the role of homoeopathy. This study was primarily aimed to investigate whether homoeopathic medicines have any effect in treatment of patients with primary enuresis. For this study 40 patients were enrolled belonging to age group of 5-15 years, of both sexes. Out of which 20 were in experimental group and 20 were in placebo control group. Prescription was done on the basis of constitutional totality. The most common remedies prescribed was pulsatilla 200, causticum 200, calc carb 200, baryta carb 200 etc. the Patient showed positive results; statistical analysis was done by students ‘t’ test and one sample ‘t’ test due to small sample size. There was overall improvement in the patients of experimental group and null hypothesis was rejected. Outcome assessment criteria is based on Likert scoring scale in which frequency, urgency, sleep patterns, constipation , intellectuals , social , behavioural patterns were included , considered and compared 3 months before and after the treatment which showed great reduction in number of episodes overall. During the study none of the patients were had adverse effects.

CONCLUSION

From the above observations it can be concluded that constitutional homeopathic medicines are effective in treating patients with primary enuresis. Homeopathic medicines can be used to treat primary enuresis, and also help treat it, reducing the intensity and frequency of the number of episodes. It can also

subside night and other related symptoms of enuresis. The results show that prescriptions based on the constitutional totality can contribute to symptom reduction and general improvement of the patients. However, as this is a small study over a shorter period of time, further investigation is needed in the future, taking into account the large sample size and the extension of the study duration.

CONFLICT OF INTEREST

Author declares no conflict of interest

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