

REVIEW OF SHAYYAMUTRA (ENEURESIS) IN PEDIATRIC AGE

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ABSTRACT

Today, child health has assumed great significance in all over world. Its importance is being realized more and more by pediatricians and general public in developing as well as developed countries. Enuresis or Shayyamutra is a clinical condition which is seen in childhood. It is defined as the voluntary or involuntary repeated discharge of urine into bed or clothes after developing age when bladder control should be established. It can be include in psyco behavioural disorder as per modern paediatrics. There is a need to expand treatment modality. In ayurveda direct reference about shayyamutra is well detailed in Bruhatrayee, but few references are available. So this an attempt to compile all the information regarding this disease and its management, so that one can understand about this disease thoroughly.

KEYWORDS: *Shayyamutra, Bruhatraye, Eneuresis, Childhood.***INTRODUCTION**

Shayyamutra or Enuresis is a disease which is very much prevalent in childhood period. It is clinical condition seen in childhood. The word shayyamutra is itself indicating to the urine passed in the bed especially during sleeping in both day and night.^[1] Eventhough it is not a cause for mortality or morbidity, it only lead to embarrassment in a child with poor psychological development. According to Indian academy of paediatrics enuresis (bedwetting) is very common problem in both boys and girls in their developing period. It is the voluntary voiding of urine not occasioned by a physical condition, it is a complete evacuation of the bladder at a wrong place and time at least twice a month after fifth year of life. While a majority of patients of nocturnal bedwetting, a diurnal (but during sleep) variety and a combined variety also been there. It is termed primary when the child has never been dry and secondary when bedwetting starts after a minimum period of 6 months of dryness at night. It is termed monosymptomatic if it is not accompanied by any lower urinary tract symptoms.

In ayurveda no much description is found but the first definition of shayyamutra is given by aadhmal. In which he gave the etiology as ‘Kshin purvam’ and ‘dosha prabhavam’. Vangsenan noticed first the complaint of shayyamutra mentioned its management in his text. Parents and family members are frequently stressed by a child’s bettwetting soiled linens and clothing cause

additional laundry. Wetting episodes can cause lost sleep if the child wakes or cries waking the parents. A European study estimated 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 diaper and mattress. This disease is rampant in todays society and threatening as a burden of shame and guilt to the child. When the child wants to sleep dry and parents want to come out of related stress due to bettwetting, an actual treatment is needed to be instigated at the earliest possible time and age.

Incidence

Age	Male	Female
5 years	7%	3%
12 years	8%	4%
18 years	1-3%	Rarely found

According to Nelson text book of paediatrics the prevalence of bedwetting is about 7% of boys and 3% of girls at 5 years of age 8% of 12 years boys and 4% of 12 years girls only 1-3% of adolescent are still wetting their beds.^[2] Boys suffer more often girls because girls achieve each milestone before boys. Approximately 60% of children with nocturnal are boys. Family history is positive in 50% of cases. If one parent is enuretic, each child has a 44% risk of enuresis, if both parents were enuretic each child has a 77% likelihood of enuresis.

Reasons Behind Shayyamutra (Enuresis) Presentability

In classical texts there is no detailed reason regarding shayyamutra. A hypothetical causes of shayyamutra are srotoavrodha and vitiation of sadhaka pita, pachana pita, avalambaka kapha, manovaha srotas, atinidra and suppression of pranavayu which disrupts the normal function of samana, udana, and apana vayu. It is expected that the drug compound which possess properties like nervine tonic, balya rasayan,^[3] mutra sangrahaneya, krimighna and srotoshodhaka etc,^[4] may help in breaking down the aetiopathogenesis of shayyamutra. Aaharaj, viharaj nidaan also contribute in this disease. Common cause of bedwetting includes- Genetic factors, neurological developmental delay, psychological factors, sleep disorders, endocrine factors, reduced bladder capacity and diet. Some also says that bedwetting can be caused by improper toilet training. Beside all these causes, the cause likely to involve physiologic and psychologic factors. Children with enuresis may hyposecrete arginine vasopressine and a key factor in the pathophysiology of the disorder.⁵ Some of the factors responsible for enuresis are maturational delay, deep sleep and a loss of a cardiac rhythm of the antidiuretic hormone secretion. Diagnosis can be done through current DSM-IV-TR criteria ie:-

1. Repeated voiding of urine into bed or clothes beyond age of 4 years for daytime and beyonds 6 years for nighttime
2. Behaviour must be clinically significant as manifested by either a frequency of twice a week for atleast three consecutive months or the presence of clinically significance distress or impairment in social, academic or other important areas of functioning.
3. Chronological age is at least 5 years of age.
4. The behaviour is not due excluding to the direct physiological effect of a substance or a general medical condition.

All these criteria must be met in order to diagnosis an individual.

Ayurvedic View

Shayyamutra is regarded as one of the behavioural disorder in children. In ayurveda direct reference about shayyamutra is not available in bruhtriyee. Only few reference are available regarding shayyamutra. Vangasena in his book chikitsa sarasangraha noticed the complaint of shayaamutra and its management. Sharangadhar has also enumerated shayyamutra under the caption of balaroga prakarna but lacks in detail description.^[6] In bhaishajyaratnavali 'Govinddas' has stated in the context of Kshudra roga chikitsa but he had not given any detailed description of the disease. In vaidya manorama, shri kalidas has mentioned only the shayyaputra chikitsa. Acharya adhmala in his gudharthadipika commentary says that " when a child especially when he is tired and taking sleep during night time, due to the effects of doshas, voids urine. Hypothetically in shayya mutra there is a deep sleep which is induced by increase of tamoguna and kapha or by fatigue. The sleep induced by excessive increase of tamoguna occurs at terminal stage of sleep, where tamoguna and increase kapha dosha are involved. Tamoguna also causes fear, ignorance, depression, and laziness. When kapha dosha occludes the sensory channels then the terminal sleep manifests. It is difficult for affected child in night to be awakened and go to the toilet. So we can see phenomenon of sleep is on the platform of kapha, tamoguna and manas bhava because the involvement of the mental factor in sleep is more pronounced as it is mind that initiates sleep. Types of shayya mutra can be classifies on the following basic in ayurveda:-

On the basis of prakrati	On the basis of daily time	On the basis of chronicity
Sharirika	Ratrija (nocturnal)	Prathamik (primary)
Mansika	Diwaj (diurnal)	Dwatik (secondary)
Manodahika	Sanyukta(both)	-

Precautions and Management

Parents should take care of the following things to avoid enuresis

- Child should make a habit to urinate before going to bed.
- Make sure that child should not be very tired before going to bed.
- When child has slept for 2-3hrs, parents should wake him up once again and make him pass urine.
- Child should not make hurry in passing urine let him to do it complete.
- Food items which increase bed wetting should be least provided viz. tea, coffee, chocolates, cold drinks, oranges, grapes, tomatoes, citrus products and fermented items.
- Never get furious with child for bed wetting and never punish also as it is not under his control. Infect

blaming the child or giving punishment demoralizes him.

- Make the child feel that you are affection towards him and understand what he feels.
- Child should be realized again and again that bed wetting is not his fault.
- After bed wetting change the bed immediately so that should not come to know that he did it again.
- Appreciate the child for dry night i.e. when he didn't do bed wetting and reward him for dry night.
- Except doctor don't discuss this problem with anybody in front of child.
- It is important to tell the child that bed wetting is a temporary complaint and will be resolved slow.

In 19th century AD, in bhaishajya ratnavali acharya govindas, explain the use of bimbimoola and ahiphena in

shayyamutra chikitsa.^[7] Vaidya manorama, explains a child who cannot control his or her urge to pass urine is advised to take decoction of the roots of chameli (*Jasminum officinale*). Medicinal herbs used in the treatment:- Bimb, vishtinduka, khadira, amalaki, hareetki, guggulu, haridra etc.

Decoction of bimb moola and ahiphena (32-125mg) should be taken in the condition of passing urine at bed. In modern some pharmacological therapy have been mentioned.^[2]

time. Eranda taila (2-3drops) should be given with milk in the condition of malavarodhjanya shayyamutra. The therapies which increase weight and strength are brimhana. It is essential for vata disorders. This therapy consist of rich diet, tonic herbs, medhya drugs like brahmi, mandukparni, shankhpushpi etc are specific. Brimhana chikitsa may be very beneficial in that enuresis which are caused by maturational delay, sleep disorders, psychological, neurologic causes.^[8]

Drugs	Dose	Side effects	Age for use
DDAVP nasal spray	10-40ug/day	Nasal stuffiness, hyponatremia, seizures	Any
DDAVP tablets	0.2-0.6mg/day	Headache, epistaxis, nausea	Any
oxybutylin	5-20mg	Dryness of mouth, flushing, palpitations, blurring of vision	Any
Tolterodine	2mg at bedtime	Similar to oxybutylin but milder	>5 yr
imipramine	0.9-1.5mg/kg/day	Anxiety, personality, change pakpitations	>7 yr

Alarm device – also known as bedwetting alarms, can awaken child when he or she begins to urinate. These device can include a water sensitive sensor that is clipped on the pajamas, a wire connecting to a battery-driven control, and an alarm that sounds when moisture is first detected. For the alarm to be effective, the child must awaken or be awakened as soon as the alarm goes off. This require having another person sleep in the same room to awaken the betwetter. This behavioural training is one of the safest and more effective treatment.

CONCLUSION

Enuresis is a common condition that can affect a child's self-esteem. It is due to improper ahara vihara, mansik causes and can be treated with medhya rasayans. It is a serious problem in today's ultra modern life child feel alone and ashamed regarding this problem. So there is need to understand the cause and precautions to be taken by the parents regarding their child to avoid this disease. Parents must be aware about the psychology of children through continue counselling with their child.

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