



Conceptual study on Shayyamutra with special reference to Enuresis

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Abstract:

Child health has become increasingly important around the world¹. Bed wetting is the common psychosomatic illness seen in the school going children due to various reasons. About 7% of male and 3% of female children fail to adapt diurnal and nocturnal control of bladder by the age of 4-5 years with ratio of 3:1. Nocturnal enuresis is involuntary passing of urine during sleep. Nocturnal enuresis i.e Shayyamutra though not physically very harmful but negatively affects child psychology and is assign of delayed neurological development. Medical intervention is required if bed wetting persists beyond the age of 5 years². Routine management of nocturnal enuresis involves prescription of medicines like desmopresin, which has lots of limitations as it causes water intoxication and hypo-natremia on a long run, it is not advisable to follow. Ayurveda considers this problem as a Kaphaavrit Vata condition along with Tama involvement. In Bruhatrayee, a direct reference to the Shayyamutra is fully detailed, but there are few references available. The description regarding Shayyamutra is found in Sharangadhara and Vangasen Samhita Review of the literature and reported studies in Ayurvedic parlance states importance of certain Kaphaghna/Pramehaghna drugs, Nervine tonics, Panchakarma therapies and Sattvavajaya Chikitsa³.

KEYWORDS: Shayyamutra, Nocturnal enuresis, Nervine tonics, Kaphavrit Vata, Sattvavajaya Chikitsa

INTRODUCTION:

Enuresis, also known as Shayyamutra, is a condition that is highly common in children. The word Shayyamutra refers to urine passed in the bed, particularly during sleep, at any time of day or night⁴. Even while it is not a cause of death or illness, it might create humiliation in a child who has not developed psychologically. Though nocturnal enuresis is involuntary passing of urine during sleep, after the fifth year of life, it is the voluntarily voiding of urine that is not caused by a physical condition, and it is a complete evacuation of the bladder at an inappropriate location and time at least twice a month. Primary bedwetting occurs when a child has never been dry and secondary bedwetting occurs after a minimum of 6 months of nighttime dryness. If there are no other symptoms in the lower urinary tract, it is called monosymptomatic. If the child wakes or cries, awakening the parents, wetting episodes might result in missed sleep. Bedwetting is frequently associated with a family history of the condition. Aadhmal gives the first definition. In which he cites "Kshin purvam" and "Dosha prabhavam" as the etiology⁵. In Ayurvedic parlance states importance of certain Kaphaghna/Pramehaghna drugs (like Marich, Bimbi, Vangabhasma, Khadira, Shilajit, ChandraprabhaVati), Nervine tonics (like Brahmi, Giloy, Yashtimadhu, Shankhpushpi, Mandukparni), Panchakarma therapies (especially Nasya and Shirodhara) and most important Sattvavajaya Chikitsa⁶. Thus Considering pathology of the Shayyamutra, treatment should be planned in a multi dimensional approach including all components of management than merely choosing single drug or Kalpa.

NEED OF STUDY:

The prevalence of enuresis is about 15-25% of children at 5 years of age, 8% of 12 years of age in male child and 4% of 12 years old female child. Boys suffer more often than girls because girls typically achieve each milestone before boys. Enuresis (bedwetting) is a prevalent condition in both boys and girls during their growing years, according to the Indian Academy of Pediatrics.

REASONS BEHIND SHAYYAMUTRA (ENURESIS) PRESENTABILITY-

❖ According to Ayurveda:

A brief description regarding Shayyamutra is found in Sharangadhra Samhita. The process of urine formation is aided by Prana, Vyana and Apanavata and Avalambaka

Kapha with the overall control of mind. Micturition is one of the functions of normal Apana Vata. The activities of Apana are regulated by Prana and Vyana. The Apana facilitates active secretion of urine, motion, semen etc. After attaining a level of developmental maturity, there develops a control over these activities initiated by Prana and Vyana. But in this condition the overall control of activities of Apana is not developed resulting in vitiation of which in turn loss of control of micturition. Loss of control of Prana and Vyana over Apana and encircling of Apana by Kapha and tama happens together and the child unknowingly urine in the bed. This sickness is also aided by Aharaj and Viharaj Nidana.

❖ According to Modern:

Brain plays an important role in both physiological as well as pathological process of body. It functions constantly even during sleep. It may caused by delayed bladder maturation, worm infestation, in rare cases structural anatomical defect in external genitalia, Excessive sleep, Stress, anxiety, underlying fear and such other emotional problems may causes the Enuresis. This may happen in day time also in night time.

NIDANA:

Genetic reasons, neurological developmental delays, psychological factors, sleep difficulties, endocrine factors, lower bladder capacity, and diet are all common causes of bedwetting. Some people believe that incorrect toilet training might promote bedwetting. Aside from all of these aspects, physiologic and psychological factors are likely to play a role. Enuresis can cause hyposecretion of arginine vasopressine, which is a major element in the disorder's pathogenesis⁷. Maturational latency, deep sleep, and the lack of a cardiac rhythm of antidiuretic hormone secretion are some of the causes of enuresis.

Current DSM-IV-TR criteria can be used to make a diagnosis, such as:

1. Urination into bed or clothes on a regular basis after the age of four years for day time and six years for night time.
2. The behaviours must be clinically substantial, as evidenced by at least twice weekly behaviours for three months or the existence of clinically significant distress or impairment in social, academic, or other critical areas of functioning.
3. Age must be at least 5 years old chronologically.
4. The behavior is not caused solely by a substance's direct physiological action or a general medical condition.

To diagnose an individual, all of these requirements must be met.

The following fundamental categories can be used to categorise shayyamutras:-

On the basis of prakriti	On the basis of daily time	On the basis of chronicity
Sharirika	Ratrija (nocturnal)	Prathamic (primary)
Mansika	Diwaj (diurnal)	Dwatic (secondary)
Manodahika	Sanyukta(both)	-

AIM AND OBJECTIVES:

Aim:-

1. To Study the Shayyamutra Disease as per Ayurveda classical.

Objectives:-

1. To carryout comprehensive literary work covering Ayurvedic and modern aspect of Shayyamutra.
2. To study the concept of Shayyamutra with its Nidana Panchaka.

DISEASE REVIEW:

- None of the Bruhat-Trayees had explained the disease Shaiyyamutra.
- In 12th Century A.D., Vangasena, in his book Chikitsa Sara Sangraha mentioned the complaint of Shaiyyamutra and gave its management. He had not described any etiology or pathology of the disorder. Vangasena had not mentioned any specific therapy for its management, except psychological therapy and a formal recipe.
- In 13th century A.D. Shargnadhara Samhita, has enumerated Shaiyyamutra under the diseases described in "Balaroga Prakarana", but the detailed description of Shaiyyamutra is missing further⁸.
- In 19th century A.D. in Bhaishajya Ratnavali, Acharya Govinda Das, added use of Bimbi-Mula or Ahiphena in Shaiyyamutra Chikitsa. This was described in the context of Kshudraroga Chikitsa, but he had not given any description of the disorder or etc. etiology⁹.
- In Vaidya Manorama book written by Vaidyavara Shri Kalidasa had mentioned only the Shaiyyamutra Chikitsa in the Mutrakricchra Prameha Somaroga Adhikaranam, Saptama Patalam.

- Keith Kenyon (1974) in his book "Acupressure cure for common diseases" recommended the bed wetting point located on the palm side of little finger over the middle of the most distant crease from palm, child is advised to press for several minutes on this point at his bed time¹⁰.

MODERN REVIEW:

- Enuresis has been recognized as problem since the time of PapyrusEbers dated 1550 B.C. This was one of only few medical texts of the time and the mere mention of Nocturnal Enuresis gave some merit to its problematic nature. Treatments advocated since then include use of various portions from animals, organs or plants.
- In the Nelson Text Book of Pediatrics(14th ed.) enuresis has been described under the Disorders related to 'Vegetative functions, further it has been stated as Nocturnal enuresis: voiding dysfunctions in the major heading of urological disorders in infants and children¹¹.
- In the Short Text book of Pediatrics by Suraj Gupte (7th ed., 1996) enuresis has been enumerated under the common Behavioral problems of mid childhood age.
- In O. P. Ghai's Essential Pediatrics (4TH ed., 1996) enuresis has been described under the Growth and Development disorder of Preschool Age Problems⁷.
- In Kaplan and Saddock's "Synopsis of Psychiatry (1999) - Enuresis has been described under the title of Elimination disorders".
- In IAP Text Book of Pediatrics (2000) enuresis has been enlisted in Disorders of Micturition and Developmental Disorders.
- Dr. K. N. Aggrawal (2000) in his text placed enuresis under behavioural disorders'.
- In Campbell's Textbook of Urology, enuresis is described under "Functional Voiding Disorders".

From the foregoing description, it becomes evident that the development in the knowledge of enuresis has passed through the various phases. Researches carried out in different parts of the world and the work, in this regard is still continuing.

CLASSIFICATION OF ENURESIS:

According to Time: Daytime, Nighttime, Combined OR Diurnal, Nocturnal

According to Type: Primary, Secondary

According to Symptoms: Monosymptomatic, Non- monosymptomatic

KRIYA SHAAREERA OF MUTRAVAHA SROTAS:

The concept of urine formation has been described by various Acharyas in special and different ways. They consider the Mutra as a Mala, which is absorbed in the Pakvashaya, this clears many doubts. About urine formation Acharya Sushrut explains that Mutravaha Nadis related to Pakvashaya consistently replenish the Basti, like river carrying water from different regions to ocean. These Nadis divide into innumerable branches and are not visible. The Mutra drained from interiors of Amashaya and Pakvashaya enters Basti both in awakening as well as in state of sleep. It is a continuous process like a new pot immersed up to its neck in water, gets filled by water through its lateral pores. According to Acharya Sushrut the Pachak-Pitta residing between Amashaya and Pakvashaya is responsible for the digestion of four kinds of food and separation of the Rasa, Mutra and Pureesha.

Acharya Dalhana while elaborating the function of Adhogami Dhamani, says that they go to Pittashaya and separates, Mutra, Pureesha and Sveda from the digested part of food¹². According to Bhavamishra and Sharangadhara the "Sara-Bhaga" of digested food is known as the Rasa and the Sara-Rahitha Bhaga (liquid) that goes to Basti is called "Drava-Mala". The Mutra Nirmana Prakriya is completed in three stages¹³.

1. Dravamala Avastha
2. Sakleda Avastha
3. Mutra Avastha

ROLE OF MANA, NIDRA AND SADHAKA PITTA IN THE PATHOGENESIS OF DISEASE SHAIYYAMUTRA:

In this regard functions of reticular formation, hypothalamus and limbic system along with diencephalon, some part of thalamus including brain stem come in light. Hypothalamus is said as main controller of endocrine and vegetative functions along with emotional. In present study it was hypothesized that there may be some problem occurs in this area while sleep, as a result of daytime emotional conflicts. Sadhaka Pitta which plays main role in governing emotional behaviors may lies somewhere in these surrounding areas. As hypothalamus controls endocrine functions as well emotional behaviors, so it becomes clear that emotional conflicts affect endocrine mechanism, and by this one could understand role of Sadhaka Pitta in controlling endocrine system. In context of sleep mechanism, Reticular formation, hypothalamus and lower nuclei in brain stem

show some resemblance with functions described for Mana. This way it could be seen that Mana, Sadhakapitta and Nidra are almost related to the similar structure or surroundings of brain and are closely associated with the functions of each other and also influence each other.

PRINCIPLE OF TREATMENT:

Being a Kaphaavrit Vata condition, mainly Kaphahara and Vatanulomaka type of treatments are to be adopted. As there is Mutravaha Srotas Vikriti the focus of treatment should remain on drugs acting mainly on Mutravaha Srotas. Kleda Nirharana is function of Mutra hence Kleda Vriddhi is clearly evident in the pathology along with Dhatushaithilya. Thus Dhatudardhyakara drugs are also to be thought of. From causative or aggravating factors it is clearly evident that Manas and neurological developmental delay plays a role in pathology thus Medhya drugs are also required. As the disease is occurring in childhood and concerned with urination the treatment principles of Kaphaja Prameha can be well adopted as this age is of Kapha. Also Sattvavajaya Chikitsa i.e counseling is must to boost the confidence and retain the self esteem of the child.

Allopathic medicine treatment options include anticholinergics, antispasmodic agents, and tricyclic antidepressants (TCAs). Desmopressin acetate nasal spray- 10-40ug/day, Desmopressin acetate tablet- 0.2-0.6mg/day, oxybutynin-5-20mg Tolterodine-2mg at bedtime, imipramine- 0.9-1.5mg/kg/day, use of Alarm devices. , which has lots of limitations as it causes water intoxication and hypo-natremia on a long run, it is not advisable to follow.

Ayurvedic Management Of Shayyamutra:

- The use of bimbimoola and ahiphena in shayyamutra chikitsa is explained in the 19th century AD by bhaishajya ratnavali acharya govindas. When passing urine at bedtime, a decoction of bimbi moola and ahiphena should be administered^c.
- According to Vaidya manorama, a child who is unable to control his or her need to pass pee should drink a decoction of chameli roots (jasmium officinate). Bimb, vishtinduka, khadira, amalaki, hareetki, guggulu, haridra, and other medicinal herbs were utilised in the treatment.
- In the case of malavarodhjanya shayyamutra, Eranda taila should be taken with milk. Brimhana is weight-loss and strength-building therapy. It's necessary for Vata imbalances. This treatment includes a balanced diet, tonic herbs, and medhya

medicines such as Brahmi, mandukparni, and shankhpushpi, among others. Enuresis induced by maturational delay, sleep difficulties, psychological, or neurogenic factors may benefit from Brimhana chikitsa⁹.

Mechanism that prevents bed wetting:-

1. Hormone that reduces urine production at night- After sunset body releases ADH (arginine vasopressin or AVP) which reduces urine output at night. This hormone cycle is not present at birth. Many children develop it between the ages of two and six years old, others between six and the end of puberty, and some not at all.
2. Ability to wake up when the bladder is full- It develops in the same age range as the vasopressin hormone, but is separate from that hormone cycle.
 - 1-2yrs old child- developing larger bladders and beginning to sense bladder fullness.
 - 2-3yrs old child- begin to stay dry during the day.
 - 4-5yrs old child- develop an adult pattern of urinary control and begin to stay dry at night.

PRECAUTION:

1. Make a habit of urinate before going to bed. make sure he or she is not overtired.
2. After the child has slept for 2-3 hours, the parents should wake him up and force him to pass pee with no anger or punishment.
3. The child should not rush through passing pee; instead, allow him to finish it completely.
4. Tea, coffee, chocolates, cold drinks, oranges, grapes, tomatoes, citrus products, and fermented items encourages bedwetting and should be avoided.
5. Make the child feel loved and that you understand what he is going through and remind that bedwetting is not his fault on a regular basis.
6. If he wets the bed, change it right away so no one knows he did it again.
7. Praise the youngster for a dry night, that is, a night when he did not wet the bed and Do not discuss this matter with anyone in front of the child.
8. It is critical to explain to the youngster that bedwetting is a transitory problem that will be cured gradually.

DISCUSSION:

Some Acharya's reveals the literature about Shayyamutra like First of all, it was Sharangdhara who kept Shayyamutra among 22 types of Balaroga and after that Govind das Sen placed it's under Kshudraroga. None of the ancient Acharya has described the Nidana and Samprapti of disease, only an unambiguous definition which is given by Addhamalla could provide some clue of etiopathogenesis of disease which has been given as Kshinapurvakam and Doshaprabhavat, in which leads to deep sleep so child could not be awoken when urination is required, it is also considered as weakened detrusor muscle which will affect Mutrasamgrahana capacity of Basti. Enuresis is regarded as behavioral or elimination or vegetative or voiding dysfunction disorder, psychosomatic disorder etc. in modern medicinal literature, but as behavioral disorder it has given priority since it is resolved by increasing age like other childhood behaviors. If we are able to understand the Nidanapanchak of Shayyamutra Disease then child can be get treated in initial stage easily. Thus knowledge about disease is helpful for understanding manifestation of disease. Allopathy treatment have limitations but Ayurvedic treatment can be given easily with precautions measures of Shayyamutra. Number of researches are already been done in ayurveda on shayyamutra but none of it shows promising result in the disease, So along with other medhya and balya drug it can give better results in shayyamutra along with satvavajaya chikitsa.

CONCLUSION:

Shayyamutra is Behavioral disorder and also Enuresis is a frequent ailment that can have a negative impact on a child's self-esteem, results of faulty Ahara Vihara and can be cured with Medhya Rasayanas. It is a severe problem in today's ultra-modern world, and children feel alone and guilty about it. To avoid this condition, parents must first understand the cause and take the necessary precautions with their children. Through ongoing counselling with their child, parents must have a better understanding of children's psychology.

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