CASE SERIES

A CASE SERIES ON BASTI LEPA AND AVAPEEDAKA SNEHA IN NEUROGENIC BLADDER DYSFUNCTION

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ABSTRACT

Neurogenic bladder dysfunction sometimes simply referred to as neurogenic bladder is a dysfunction of the urinary bladder due to disease of the central nervous system or peripheral nerves involved in the control of micturition. Neurogenic bladder usually causes difficulty or full inability to pass urine without use of a catheter or other method. Avapeedaka Snehapana is a unique and special method of internal administration of Sneha dravya mentioned in the classical ayurveda texts. It is mainly indicated in mutravegarodha janya vikara (diseases due to the suppression of urge of micturition). Because of the lack of adequate review and analysis, this method of administration of snehapana is losing its significance from the practices and the concept remains unexplored. The reasons for not being practiced like other snehana procedures are because of the less understanding of the concept of administration, scattered and minimal textual references. Lepa literally means application of paste over a particular part of the body, this paste is absorbed through Romakupa, Swedavaha srotas and Siramukha resulting in a particular action. A lepa is said to have actions like Shodhana, Utsadana, Ropana. Basti lepa applied over basti pradesha (suprapubic region), it is a folklore practice having added effects in neurogenic bladder.

Key words: Neurogenic bladder, Avapeedaka sneha, Basti lepa.

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INTRODUCTION

The normal function of the urinary bladder is to store and expel urine in a coordinated and controlled fashion. This coordinated activity is regulated by the central and peripheral nervous systems. Neurogenic bladder is a term applied to urinary bladder malfunction due to neurologic dysfunction emanating from internal or external trauma or disease. After the cerebral shock phase wears off, the bladder demonstrates detrusor hyperreflexia with coordinated urethral sphincter activity. Patients with detrusor hyperreflexia complain of urinary frequency, urinary urgency, and urge incontinence. The treatment for the cerebral shock phase is indwelling Foley catheter placement or clean intermittent catheterization (CIC). Detrusor hyperreflexia is treated with anticholinergic medications to facilitate bladder filling and storage[1]. The 12 types of Mutraghata are classified in to three categories for easier understanding of the subject and also to aid in approaching a patient of Mutraghata where in the principles of differential diagnosis has to be applied. The first category is based on the Neurogenic disturbances of the bladder and the types that can be included under this are – Vatakundalika, Vata Basti and Mutrajathara. The second category with the symptomatology of obstructed flow of urine, increased frequency of urination, Sense of incomplete voiding has Bastikundalika, Mutragrathi, Mutrotsarga and Ashteela types. The third category is termed as “Others”, where the types included are Mutrakshaya (Anuria), Ushnavata (Haematuria), Mutoukasada (Abnormal colorization of urine), Vidvighata (faecum passed per uretherum) & Mutrashukra (retrograde flow of semen) can be interpreted as close to the conditions provided in the brackets.

Avapeedaka snehapana is a special pattern of oral administration of sneha. Here Sneha is administered in 2 kala (period) at a stretch, that is, pragbhakta (before food) and in jeernantha avastha (after the digestion of food) in hrusva matra (minimal dose) and uttama matra (maximal dose) respectively[2]. Uttama matra and Hrusva matra are the quantities of sneha that digest in a period of 24 hours and 6 hours, respectively. The word Avapeedaka implies the meaning of either peedana (pushing down) of dosha or the peedana of ahara[3]. Avapeedaka snehapana is considered as pittanilamayagna. It has a special affinity toward bladder, thighs and low back. It is also vrishya[3]. In the context of Avapeedaka snehapana, Ayurveda texts mention ghrita as the better choice to reduce vatakopa (aggravation of vata) rather than taila even though taila is the best vata shamaka (pacifies vata) Sneha dravya. Taila is not advisable in this condition because of its
baddhavitt and alpamutra swabava\(^6\). Hence, ghrita is the sneha of choice used in this pattern of snehapana even though various types of sneha dravya are mentioned for internal administration. Basti lepa is prepared from Trapusa beeja (Cucumis sativus) is sheeta in quality. Gokshura choorna (Tribulus terrestris) is having qualities like sheetala, balakrut, pushtidashcha and vatanut. Kaalindi white pulp (Citrullus vulgaris) is grahi, sheetala and guru. Lepa is applied from umbilicus to supra-pubic region.

**MATERIAL AND METHODS:**

Inclusion criteria: Two Patients diagnosed with neurogenic bladder were taken in the study.

**Methodology:**

1. **Avapeedaka snehapana** with vatsyamayantaka ghrita\(^7\). Alpa matra of snehapana is administered before food and Uttama matra of snehapana is given after the digestion of food\(^2\). Matra of sneha is fixed on the jataragni bala of the patients, after proper digestion of the previously taken food 20ml of sukhosna Vatsyamayantaka ghrita is given and advised to take sukhosna jala. After agnideepti 40ml of sukhosna Vatsyamayantaka ghrita is given to the patients.

2. **Trapus beeja** (Cucumis sativus), Gokshura choorna (Tribulus terrestris) and white pulp of kaalindi (Citrullus vulgaris) are mixed and paste is applied over the *Basti pradesha* (Umbilicus to supra-pubic region).

3. Clamping of Catheter (bladder training) was practiced to train the bladder by clamping the catheter for specific time and clamping duration was increased and observed for bladder sensation. Initially catheter was clamped and removed after per abdominal bladder examination, same was practiced for few days, later patients started feeling urge of urination then the catheter was clamped and removed when patient told the sense of urge of urination.

**Duration of treatment:** *Avapeedaka snehapana* is administered till the attainment of *Samyak snigdha lakshananas*.

**CASE DETAILS:**

**Case 1**- A 42 years old male patient, came with the history of fall from the second floor of a building and taken to the nearby hospital and MRI of spine revealed compressed fracture of lumbar vertebra (L3-S1) and was corrected with invasive treatment. After operative and palliative treatment Patient left with paraplegia, bowel and bladder incontinence. Physiotherapy was advised and patient was discharged.

**Case 2**- A male patient 54 years old, was k/c/o HTN since 5yeras and was on medication. Patient suddenly lost strength and movements in his left side of the body and loss of bladder and bowel control. Investigations revealed
Right MCA infract. Patient had uncontrolled HTN, was had discontinued antihypertensive mediations for 15 days. After treatment patient was discharged and advised with physiotherapy.

RESULTS:

Table No: 1 effect of therapy on subjective parameters

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>12/day, 2/night</td>
<td>7/day, 1/night</td>
</tr>
<tr>
<td>Wetness</td>
<td>Present</td>
<td>Reduced completely</td>
</tr>
<tr>
<td>Voiding</td>
<td>Leaking</td>
<td>Can sense the urge</td>
</tr>
<tr>
<td>Ability to sense bladder fullness</td>
<td>Absent</td>
<td>Can sense the fullness</td>
</tr>
</tbody>
</table>

After treatment frequency of urination was reduced by about 50%. Voiding was leaking before and gradually started getting sense the urge of micturition along with it bladder fullness sensation was regained.

DISCUSSION:

Normal voiding is essentially a spinal reflex modulated by the central nervous system (brain and spinal cord), which coordinates function of the bladder and urethra. The bladder and urethra are innervated by 3 sets of peripheral nerves arising from the autonomic nervous system (ANS) and somatic nervous system. After a stroke, the brain may enter into a temporary acute cerebral shock phase. During this time the urinary bladder will be in retention detrusor areflexia. Almost 25% of affected individuals develop acute urine retention after a stroke. Neurogenic bladder from spinal cord lesions may take various forms, depending on the mechanism and site of injury. The spinal shock phase typically lasts 6-12 weeks but may persist longer in some cases. During this time, the urinary bladder must be drained with indwelling urethral catheter. When the spinal shock phase wears off, bladder function returns but the detrusor activity increases in reflex excitability to an overactive state (ie, detrusor hyperreflexia). Depending on the level of the lesion, detrusor sphincter dyssynergia–detrusor hyperreflexia (DSD-DH) may develop. Thus, these patients must be monitored for leaking between CIC, and periodic urodynamic testing must be performed for this alteration in detrusor
behavior. During urodynamic studies, intravesical instillation of cold saline may indicate return of reflex activity or help better characterize the lesion. Mutraghata is one of the most common and distressing disease among the group of urinary disorder. 

Avapeedaka snehapana with vatsyamayantaka ghrita, alpa matra of snehapana is administered before food and uttama matra of snehapana is given after the digestion of food, it is special type of snehapana indicated in mutrashayagata diseases. Vastyamayantaka Ghrita is explained in the ghrita prakarana of Sahasrayoga, it is indicated in mootrakrichra, Mootra sharkara, Prameha and in ashmari. Apana vata is responsible for the proper functioning of micturition, defecation, semen ejaculation, menstrual blood flow and childbirth.

Apana vayu is hampered in the conditions like ashmari (urinary calculi), udavarta (upward movement of vata), and mutrakrichra (dysuria). Avapeedaka snehapana can be clinically administered.

The ghee is administered as avapeedaka snehapana and rakta shali is used as diet in the form of yavagu. Ghee contains almost 99.5grms of fat with minimal amount of protein and zero carbohydrate, while 100grms of rakta shali contains 0.9grms of fat, 2.6grms of protein and 23grms of carbohydrate. This combination is similar to that of ketogenic diet. The end product of ketogenesis process are the ATP and H+ IONS. Thus, as the ketogenesis increases, the water excretion also increases, which will help in the treatment of the disease. Ketogenic food can increase the urine output and thereby may have an influence on mutra vegarodha janya vikara and mutravaha srotudashti. Ketogenic diet shows neuroprotective effects and studies show its efficacy for a number of neurological disorders, including epilepsy, Alzheimer’s disease, Parkinson’s disease, sleep disorders, headache, traumatic brain injury, amyotrophic lateral sclerosis, pain, and autism. Thus it is understood that avapeedaka snehapana is an advisable method of treatment for neurological disorders. As we do not find any references regarding the number of days of snehapana to be administered, it is practically administered till the attainment of samyak snigdha lakshana.

Trapusha beeka, gokshura choorna and white pulp of kaalindi are mixed and paste is applied over the basti pradesha. It has been mentioned in charaka samhita that trapusa and kaalindi are ushna veerya and mootrala. Gokshura is also mentioned in mootragata vikaras. Citrulline is amino acid present in the watermelon rind can fight radical damage, and it can boost the immune system. Watermelon is mostly made of water along with citrulline it increases the activity of kidney and regulate
Cucumber seeds are rich in proteins, minerals and healthy fats. As it has been told skin is the largest organ, absorption occurs across it, and delivers the components of the drugs to the target cells.

Clamping of Catheter (bladder training) was practiced to train the bladder by clamping the catheter for specific time and clamping duration was increased and observed for bladder sensation. Initially catheter was clamped and removed after per abdominal bladder examination, same was practiced for few days, later patients started feeling urge of urination then the catheter was clamped and removed when patient told the sense of urge of urination.

CONCLUSION:

Mutraghata is one of the most common and distressing disease among the group of urinary disorder. The 12 types of Mutraghata are classified in to three categories for easier understanding of the subject and also to aid in approaching a patient of Mutraghata where in the principles of differential diagnosis has to be applied. Avapeedaka snehapana with vatsyamayantaka ghrita Alpa matra of snehapana is administered before food and uttama matra of snehapana is given after the digestion of food, trapusha beeja, gokshura choorna and white pulp of kaalindi are mixed and paste is applied over the basti pradesha and bladder training is the treatment protocol can be adopted to improve the bowel and bladder control lost and which is left after CVA attack, spinal trauma and neurologic pathologies.

REFERENCES


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