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Case Study

A CASE STUDY ON NEUROGENIC BLADDER VIS- A- VIS BASTIKUNDALIKA

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ABSTRACT

Neurogenic bladder is impaired bladder function resulting from damage to the nerves that govern the urinary tract. Various nerves converge in the area of the bladder and serve to control the muscles of the urinary tract, which includes the sphincter muscles that normally form a tight ring around the urethra to hold urine back until it is voluntarily released. Damage to these nerve cells results in neurogenic bladder[1]. This can be viewed as bastikundalika, a type of mutraghata (obstructive uropathy) as per Ayurveda. There will be retention of urine due to apanavatadusti. Ayurveda propounds a holistic treatment approach in the treatment of neurogenic bladder. A patient of neurogenic bladder with subsequent urinary tract infection was treated with such treatment protocol. As there is no specific line of treatment mentioned for bastikundalika in classics of Ayurveda, the general line of treatment of mutraghata along with drugs acting on urinary system was administered for the duration of 2 months in successfully treating this case. Patient was completely relieved with the symptoms. The same has been presented as a case study in this article.

Keywords: Neurogenic bladder, bastikundaleeka, mutrghata.

INTRODUCTION

Neurogenic bladder is a disease characterised by dysfunction of the urinary bladder caused by a problem of the nervous system. A variety of factors can damage these nerves and cause urinary incontinence. It is also called neuropathic bladder. There are three different types of neurogenic bladder. They are spastic bladder, reflex bladder, and flaccid bladder. In some cases where there is spastic bladder, there will be spontaneous nerve impulses to the bladder triggering spastic unexpected bladder contractions, resulting in accidental voiding of sometimes large amounts of urine. In case of flaccid neurogenic bladder, the bladder may become flaccid and distended and cease to contract fully, resulting in only partial emptying and continual dribbling of small amounts of urine. Stagnant urine in the bladder also increases the risks of bladder stone formation and urinary tract infections and subsequently producing their respective symptoms. Such infections, when severe, can lead to life-threatening kidney failure[1]. Ayurveda describes a similar condition called bastikundalika[2], one among 13 types of mutraghata described in our classics. This condition is characterised by retention of urine in bladder leading to its distension and bladder attains the shape of uterus. This produces severe pain, burning sensation, and distress on passing urine. Such individual discharges urine in interrupted stream or drop by drop associated with pain and distress in lower abdomen. Apanavata is the prime dosha involved in this disease. When it is associated with pitta dosha produces burning sensation and pain on passing urine. Also there will be discolouration of urine. Treatment to such condition in contemporary science includes catheterisation and surgery. Use of catheters increases the risk of urinary tract infections and abscess formation which further aggravates the condition. Hence a better management protocol is essential for the same. As per Ayurveda, the general line of treatment to any mutraghata is controlling apanavata by sneha virechana[3] (purgation with medicated oil/ghee) followed by shamanoushadis (oral medications elevating the disease) acting on mutravahasamsthana (urinary system). Present study was conducted on a patient who was diagnosed of neurogenic bladder at K R Hospital, Mysore, India 6 years back before approaching for Ayurvedic treatment. Patient was even catheterised. Following which he developed recurrent urinary tract infection. Though the patient was symptom free after taking allopathic medications, the symptoms reoccurred within a short period of time. Hence he had approached for Ayurvedic management. A male patient of 26 years, Hindu by religion, living in Mysore, India approached to OPD of government Ayurveda medical hospital, Mysore, India on 4/1/2012 with chief complaints of straining, incomplete emptying of bladder, weak stream, urgency and burning micturition since 6 years which aggravated since 1 week. As patient was unable to pass urine; he was catheterised since 3 months. For these complaints patient got admitted in special ward of hospital with IP no. 136. On examination all the general examinations were found to be normal.

Laboratory Findings

Urine: Albumin - ++
Sugar - Absent
Microscopy – Plenty of pus cells and RBC
USG (Abdomen): suggests cystitis
Blood for– RBS – 89 mg%
Urea – 24 mg%
Serum Creatinine – 0.9 mg%
Hb% - 14.4 g%
TC – 1600 cells/cumm
DC – N-73 % L-22 % E-2 % M-3 % B-0 %
Culture % Sensitivity – Urine:-
Organism: *E. coli*
Colony count: > 1 lakh
H.S. For Azithromycin and Cotrimaxazole

Samprapti Ghataka

Dosha- Vatakapha pradhanatridoshas
Dushya - rasa, rakta, mamsa, mutra
Agni - Mandyata
Ama - Tajjanya
Srotas - Mutravaha
Srotodushtiprakara - Sanga
Udhbava Sthana - Pakvashaya
Sanchara Sthana Mutravahasrotas
Vyakta Sthana - Mutra
Adhisthana - Basthi
Rogamarga - Madhyama
Vyadhiswabhava - Daruna

Management

Patient was initially administered with chandanasava[4] 15 ml tid, chandrakala rasa[5] 1 tid, trivangabhasma 125 mg bd for a week. After taking these shamanoushadhis mutradaha (burning micturition) subsided but mutraapravruti (retention of urine) persisted. Following this, to the above medicines chandraprabha vati[6] 1 tid and pashanabhedadi kashaya[7] for sitz bath were added. After taking these medicines for 4 days, patient was able to pass urine without catheterization. On 15th day all medicines were stopped for the purpose of conducting virechana (purgation). Ajamodadichurna 1 tsf tid with hot water was given for 3 days for the sake of deepana and pachana. After attaining niramaavastha in 3 days, snehapana (internal administration of medicated oil/ghee) with changeri grutha[8] was started and samyaksnehalakshanas were attained after 5 days of snehapana.

Table 1: Dose of snehapana and with their respective time of Kshudhapravrutti

Date	Dose	Kshudhapravruti
19-01-2012	30	2:30 PM
20-01-2012	50	4:00 PM
21-01-2012	70	2:15 PM
22-01-2012	90	1:45 PM
23-01-2012	100	2:00 PM

After this sarvangaabhyanga (massage) and sweda (sudation) was done for 3 days, followed by administration of 50 ml of gandharvahastyaditaila with hot water for the purpose of virechana. 8 vegas (bouts) were observed after its intake. Soon after virechana complaints like decreased urine outflow and loss of sensation got aggravated but catheterization was not required. Samsarjanakrama (dietary pattern after purificatory therapy) was carried out for 5 days. During this time there was gradual improvement in quantity of urine outflow. After following samsarjanakrama, patient was discharged. On discharge pashanabhedadi kashaya[9] 30 ml tid orally, swetha parpati[10] 500 mg tid with cold water, gokshurachurna 5 g TID with honey and pashanahedadi kashaya sitz bath was advised for 15 days. On follow up, patient got complete relief from complaints of burning and pain during micturition, incomplete emptying, weak stream and straining. Patient was asked to continue same medications for another 15 days after which symptoms did not re-occur.

Assessment

Assessment was done based on both subjective and objective criteria.

Subjective Criteria

Following subjective criteria were considered-

Table 2: Subjective criteria with their respective grading

Subjective Criteria	Grading of the criteria
Burning micturition	B0 -No Burning sensation B1- mild Burning sensation while passing urine. B2- moderate Burning sensation while passing urine. B3- severe burning sensation while passing urine and burning sensation even after passing urine.
Straining	S0- no straining on passing urine. S1- less than one in five times on passing urine. S2- less than half the time on passing urine. S3- almost always on passing urine.
Urgency	U0- no difficulty in postponing urination. U1- less than one in five times on passing urine. U2- less than half the time on passing urine. U3- almost always on passing urine
Incomplete emptying	E0- no incomplete emptying. E1- less than one in five times on passing urine. E2- less than half the time on passing urine. E3- almost always on passing urine.

These criteria were assessed before and after treatment of the case

Table 3: Subjective criteria before and after treatment

Subjective criteria	Before treatment	After treatment
Burning micturition	B3	B0
Straining	S3	S0
Urgency	U2	U0
Incomplete emptying	E3	E0

Objective Criteria

Quantity of urine per void and pus cells in microscopy was considered as the objective criteria for the present study.

Table 4: Objective criteria before and after treatment

Objective criteria	Before Treatment	After Treatment
Quantity of urine /void	50-70 ml	150 ml
Pus cells in urine microscopy	Plenty of pus cells	Nil

DISCUSSION

Prognosis of neurogenic bladder is good if it is diagnosed and treated before the kidneys are damaged[11]. In the present case as the blood urea and serum creatinine levels in the patient are suggestive of normal healthy kidneys, the Ayurvedic line

of management of the same for the duration of 2 months was sufficient in successfully treating this case. As the patient initially approached with the complaints of severe burning micturition as a lakshanika chikitsa (symptomatic management), chandrakala rasa and chanadanasava were added as they are pitta shamaka (subsides pitta) and have specific indication for the disease mutrakrichra. The drug trivangabhasma has doshapratyanika (doshic management) action. It is both vata and pittahara and has an action on mutravaha samsthana (urinary system). As the disease has vata and pitta dosha dominance, it is well managed by this drug. Sitz bath is known to be effective in bladder disorders. Hence the same was employed here with pashanabhedadi kashaya which has both vatapittahara and mutrala (diuretic) properties. The disease bastikundalika is caused mainly by apanavatadusti. Anulomana (milder variety of purgation) is mentioned as a best line of treatment for apanavatadusti. Also general line of management of all types of mutraghata is snigdhavirechana. Hence in this case, virechana with gandharvahastyadi taila was employed. Changeri grutha used for snehana purpose is also indicated in mutrakruchraroga. The yogas like pashanabhedadi kashaya, gokshurachurna and shweta parpati has both doshapratyanika (doshic management) and vyadhipratyanika (disease management) action. In charaka samhita, management of bastikundalika is stated to be similar to that of mutrakruchra[12]. Hence the above mentioned drugs which are indicated in mutrakruchraroga holds good here also. Further the ingredients of the drug pashanabhedadi kashaya have both vata and pittahara properties. Gokshura has pittahara and mutrala (diuretic) properties and shweta parpati is mutrala and vatanulomaka. Also suryakshara which is one of the ingredients of shweta parpati is teekshna, pitta nisaraka and relieves any muravarodha (obstruction in the passage of urine) which is the prime feature of any mutraghata (obstructive uropathy).

CONCLUSION

The disease neurogenic bladder is caused by the functional impairment of bladder due to the damage of nerves governing them. As apanavata controls the normal functioning of bladder; any derangement in the same causes functional abnormality of the bladder. Hence the drugs having vatahara property was administered. Also the drugs employed had mutrala (diuretic) action with specific indications for both mutraghata and mutrakruchraroga. Thus the treatment protocol adopted was proved to be beneficial in the patient.

REFERENCES

1. www.healthcentral.com/encyclopedia/408/391.html, 2013
2. Agnivesha: Charaka Samhita revised by Charaka and Dridhabala with Ayurveda Dipika commentary by Chakrapani Datta; Edited by Vaidya Jadavaji Trikamji Acharya; Published by Chaukhamba Prakashan; Varanasi; Edition-reprint; Siddhi Sthana 9/44-46; 2007. p. 719.
3. Yogaratnakara Uttarardha with Vaidya Lakshmipati Sastri's Vidyotini Hindi commentary, edited by Bhishagratna Brahmashankar Sastri, Chaukhambha Prakashan, Varanasi, Edition-reprint; 2010. p. 64.
4. Shri Govinda Das, Bhiashajyaratnavali with Bhramashankar Mishra's Vidyotini Hindi commentary, Chaukamba Prakashana, Varanasi, Edition-reprint, chap 90/27-35; 2011. p. 1182.
5. Shri Govinda Das, Bhiashajyaratnavali with Bhramashankar Mishra's Vidyotini Hindi commentary, Chaukamba Prakashana, Varanasi, Edition- reprint, chap 34/ 47-55; 2011. p. 704.
6. Siddaprayoga Sangraha, Prathamakanda, 11th edition, reprint; 2006. p. 124-125.
7. Sharangadhara, Sharangadhara Samhita madhyama khanda with Adamalla's Dipika and Kasirama's Gudartha deepika commentary, Edited by Pandit Parasurama Shastri, Chaukambha Orientalia, Varanasi, Edition- reprint, 2/40-49; 2008. p. 200-201.
8. Shri Govinda Das, Bhiashajyaratnavali with Bhramashankar Mishra's Vidyotini Hindi commentary, Chaukamba Prakashana, Varanasi, Edition- reprint, chap 8/ 549-561; 2011. p. 288.
9. Shri Govinda Das, Bhiashajyaratnavali with Bhramashankar Mishra's Vidyotini Hindi commentary, Chaukamba Prakashana, Varanasi, Edition- reprint, chap 34/ 29; 2011. p. 701.
10. Siddaprayoga Sangraha, Prathamakanda, 11th edition, reprint; 2006. p. 350-351.
11. www.nlm.nih.gov/medlineplus/ency/article/000754.htms; 2013.
12. Agnivesha: Charaka Samhita revised by Charaka and Dridhabala with Ayurveda Dipika commentary by Chakrapani Datta; Edited by Vaidya Jadavaji Trikamji Acharya; Published by Chaukhamba Prakashan; Varanasi; Edition-reprint, Siddhi Sthana 9/49; 2007. p. 720.

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