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Research Article

AYURVEDIC TREATMENT FOR CHRONIC PROSTATITIS / CHRONIC PELVIC PAIN SYNDROME: A RANDOMIZED CONTROLLED STUDY

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Abstract

The efficacy of Ayurvedic therapy in comparison with standard antimicrobial therapy with the help of NIH-CPSI score in patients with chronic prostatitis / chronic pelvic pain syndrome (CP/CPPS) was assessed. Twenty consecutive men diagnosed with CP/CPPS were screened and then asked to participate in a prostatitis treatment trial. Patients were randomized to antimicrobial therapy according to culture & sensitivity of expressed prostatic secretions and standard Ayurvedic therapy (Anuvasana basti with Narayana taila and Asthapana basti with Dashmoola kwatha with Narayana taila) with oral Ayurvedic drugs group. Orally Gokshuradi guggulu and Varunshigru kashaya was given. Patients were prospectively treated for 21 days. The change from baseline in the total and domain scores of the National Institutes of Health Chronic Prostatitis Symptom Index (NIH-CPSI) was the primary outcome parameter for this study. At the end of 21 days of the Ayurvedic therapy with oral Ayurvedic drugs group showed statistically significant decrease in total NIH-CPSI score compared with the standard antimicrobial control group. A significant improvement occurred in the pain score in the Ayurvedic therapy group after 21 days compared with the control group. Twenty one days of Ayurvedic therapy for CP/CPPS is safe and well tolerated and the results are statistically significant improvement in the NIH-CPSI, particularly in the pain domain, compared with standard anti microbial treatment.

Key words: Chronic prostatitis; Basti; Apana vayu; Pelvic pain syndrome.

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INTRODUCTION

Chronic prostatitis / chronic pelvic pain syndrome (CP/CPPS) is the most common of the prostatitis syndromes. It is characterised by pelvic pain, with or without voiding symptoms. If the historical aspect is screened it was found that Legneau may be the first to describe inflammation of the prostate gland in 1815, but it was Verdes, in 1838, who presented the first accurate description of the pathology of prostatitis.[1] The modern era describing the clinical presentation, pathology, and microscopic evaluation of prostate-specific specimens was firmly established by Young[2] by the turn of the 20th century. The primary form of therapy during most of the 20th century was repetitive prostate massage.[3] The next era of prostatitis management began in the 1960s with Meares and Stamey's description of the four-glass lower urinary tract segmented localization study.[4] Prostatitis is the most common urologic diagnosis in men younger than 50 years and the third most common urologic diagnosis in men older than 50 years (after benign prostatic hyperplasia and prostate cancer), representing 8% of male urology office visits.[5] Recent epidemiological studies have shown that CP/CPPS can affect men at any age, including those in their 80s[6] and it has significant impact on quality of life. The etiology of CP/CPSS is unknown but it is believed to be multi-factorial. Anatomic and neurophysiologic obstruction resulting in high presence dysfunctional flow patterns has been implicated in the pathogenesis of the prostatitis syndrome.[7] The immunologic cascade appears to have an important role in the development of prostatitis in those patients who develop prostatic inflammation.[8]

In Ayurveda, number of diseases related to urological system has been described, but no single disease as such can be compared with chronic prostatitis. But based on symptoms like painful dysuria, difficulty in micturition, frequency, urgency etc. chronic prostatitis can be vaguely compared with mutrakricha.[9] Apana vayu is said to be responsible for normal micturition[10] and its vitiation generally leads to urological ailments related to micturition.[11]

Classification

The National Institutes of Health (NIH) has redefined prostatitis into four distinct entities.

Category I

Category I comprises of acute bacterial prostatitis. It is an acute prostatic infection with a uropathogen, often with systemic symptoms of fever, chills and hypotension. The treatment hinges on antimicrobials and drainage of the bladder because the inflamed prostate may block urinary flow.

Category II

It includes chronic bacterial prostatitis. It is characterized by recurrent episodes of documented urinary tract infections with the same uropathogen and causes pelvic pain, urinary symptoms and ejaculatory pain. It is diagnosed by means of localization cultures that are 90% accurate in localizing the source of recurrent infections within the lower urinary tract.

Category III

Chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS)[12] is comes under the category III.

Category IV

It comprises asymptomatic inflammatory prostatitis NIH. This entity is, by definition, asymptomatic and is often diagnosed incidentally during the evaluation of infertility or prostate cancer. The clinical significance of

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Table 1: Schedule of Basti Karma adopted for trial group patients

Duration	Therapy	Medication	Dose
1 to 3rd day (3 days)	Kosthashudhhi	Shatshakara Churna	3-6 g HS.
4th Days 24thdays (21 days)	Sthanika snehan	Narayan taila	QS
4th days 24th day (21 days)	Sthanika swedana	Dashamula kashaya	QS
First day and alternatively up to 18th day. And on 19th 20th and 21st day.	Anuvasana basti	Narayana taila	100 ml
2nd day and then alternatively up to 18th day.	Asthapana basti	Dashamula kashaya and Narayana taila	200 ml 50 ml

category IV prostatitis is unknown and it is often left untreated.

There is no gold standard diagnostic test for this condition; therefore CP/CPPS is a diagnosis of exclusion.[13] Diagnosis is usually made on a typical history and not on examination or investigation findings. The initial diagnostic evaluation of a patient presenting with pelvic pain should consider the possibility of other underlying disease or disorder that could cause the symptoms.[14] Atypical presentations required investigation to exclude other conditions before the diagnosis was made. Initial screening involved with taking a complete history, examination including digital rectal examination, urinalysis and MSU microscopy and culture.[15] Assessment of symptoms by Symptom inventory or index (NIH CPSI) was used for diagnosis. It was a validated symptom questionnaire that scores on pain, voiding dysfunction and quality of life.[16] It was not used to diagnose CP/CPPS ,but was useful as an evaluative tool to assess current symptoms and their impact. It was also useful in assessing changes in symptom severity and impact during follow up, and as an outcome measure following treatment.[17]

No satisfactory treatment is available till date so this study was taken with the aim to explore a new treatment modality based on Ayurvedic principles. To assess efficacy of Ayurvedic therapy National Institutes of Health Chronic Prostatitis Symptom Index (NIH-CPSI) was the primary outcome parameter for this study.

MATERIAL AND METHOD

Present study was undertaken in the Sir Sunderlal Hospital, Banaras Hindu University, Varanasi. Patients diagnosed with chronic prostatitis were selected and registered form OPD of Mutraroga and Shalya tantra. In this study 20 men with chronic prostatitis having storage and voiding LUTS otherwise normal clinical findings, were registered in this study. Patients LUTS comprised hesitancy, weak stream, sense of incomplete emptying, intermittency, daytime frequency, nocturia, and urgency. In this study, patients suffering from urethral stricture, neurogenic bladder, BPH grade 3rd and 4th,mechanical obstruction due to malignancy of prostate or bladder or urethra, urinary, diabetes mellitus, overt neuropathies, any other condition or any drug treatment possibly affecting bladder function, urine production rate, or voiding habits were excluded. Physical examination, digital rectal examination (DRE), urine culture and sensitivity, EPS culture and sensitivity, uroflowmetry, abdominal ultrasound (US) and NIH CP scoring was used in all the 20 patients. The procedure was explained to all the patients before starting the therapy. Trial group patients were treated with Basti therapy, as per schedule (Table 1) with oral drugs. Control group patients were treated with antibiotics as per culture and sensitivity of expressed prostatic secretion, in standard doses for 21 days. After 21 days, assessment was done before and after treatment in both groups. In this paper only efficacy of

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Ayurvedic therapy on NIHCP scoring was analysed.

Patients of Group I was administered with Basti therapy as per schedule (Table 1) and also they received following oral drugs Varuna Shigru Kashaya (decoction form) in a dose of 50 ml two times a day. Gokshuradi Guggulu 2 tab twice a day for 21 days

OBSERVATION AND RESULTS

In trial group, before treatment maximum 40% patients had the NIH-CPSI score was from 21 to 25. The second most common group was 26-30 in which 30% patients were recorded; rest 10% patients were from 10 to 15, 10% patients between 16 to 20 and 10% patients were in more than 30 group. While in control group, before treatment 60% patients had NIH-CPSI score was from 21 to 25; and in 40% patients it was from 26 to 30. After treatment 60% had NIH-CPSI score was from 26 to 30 and 40% patients were from 21 to 25. (Table 2)

Twenty subjects agreed to participate in the study. In trial group the mean value of NIH-CPSI was 23.10 before treatment where in control group the mean value of NIH-CPSI was 23.80 before treatment. At the end of 21 days of active therapy, the Ayurvedic therapy group had had a statistically significant decrease in total NIH-CPSI score compared with the standard antimicrobial group (18.10, and 23.10. decrease, respectively, $P < 0.01$). A significant improvement occurred in the pain score in the Ayurvedic therapy group at 21 days compared with the control groups, but less in the voiding or quality-of-life score among the both groups. (Table 3)

In present study, NIH-CPSI score was correlated with Deha-Prakriti. In Trial group, it was observed that out of 40% patients of Vata-Pittaj Prakriti; 20% patients had NIH CPSI score was between 21 to 25; in 10% patients it was between 26-30 and in 10% patients it was more than 30. Out of 30% patients of Vata-Kaphaj Prakriti; in 10% patients NIH CPSI score was 16-20; 10% patients it was 21-25 and rest 10% patients it was 26-30. In Kapha-pittaj Prakriti out of 30%; 10% patients NIH CPSI score was 11-15; 10% patients it was 21-25 and rest 10% patients it was 26-30. (Table 4)

In Control group, it was observed that out of 30% patients of Vata-Pittaj Prakriti; 10% patients had NIH CPSI score between 21 to 25; in 20% patients it was between 26 to 30. Out of 40% patients of Vata-Kaphaj Prakriti; in 30% patients NIH CPSI score was 21 to 25; in 10% patients it was 26 to 30. In Kapha-pittaja Prakriti out of 30%; in 20% patients NIH CPSI score was 21 to 25 and in rest 10% patients it was 26 to 30. (Table 5)

DISCUSSION

Chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS) is common disease of old age which affects life quality a lot. No satisfactory treatment is available till date. So to assess efficacy of Ayurvedic therapy on National Institutes of Health Chronic Prostatitis Symptom Index (NIH-CPSI) was the primary aim of this study. In this study, after 21 days of active therapy, statistically significant changes were observed in trial group as compared to control group. (Table 3) According to Ayurveda, complex mechanism of voiding is totally controlled by functions of Apanavayu one among the five types of Vayu.[18] Main seat of this Vayu is pelvic region circulating the Basti (urinary bladder) and medhra (penis)[19] and other sites of pelvic cavity, also responsible for normal mutrapravahana (voiding function). In other words in each step in neurophysiology, neuromuscular coordination in normal

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Table 2: NIH-CPSI- score pre & post – therapy in the both groups

NIH-CPSI Score	Trial group				Control group			
	BT		AT		BT		AT	
	No	%	No	%	No	%	No	%
> 10	0	0	0	0	0	0	0	0
11-15	1	10%	3	20%	0	0	0	0
16-20	1	10%	6	60%	0	0	0	0
21-25	4	40%	1	10%	6	60%	4	40%
26-30	3	30%	0	0	4	40%	6	60%
> 30	1	10%	0	0	0	0	0	0
Total	10	100%	10%	100%	10	100%	10	100%

Table 3: Change in NIH CPSI score after therapy

Group	NIH-CPSI BT Mean ± SD	NIH-CPSI AT Mean ± SD	Within the group Comparison paired t test (BT – AT)		Between the groups comparison unpaired t-test BT-AT
Trial	23.10 ± 3.93	18.10 ± 3.63	5.00 ± 3.43	t = 4.61 P < 0.01 (HS)	t = 3.64 P > 0.01 (HS)
Control	23.80± 3.05	23.10 ± 3.21	- 0.70 ± 1.49	t = 0.48 P > 0.05 (NS)	

HS – Highly Significant; NS – No Significant

Table 4: Incidence of NIH-CPSI score relation to deha-prakriti in trial group

NIH CPSI – Score	No. of Cases	Deha – Prakriti					
		Vata – Pittaj		Vata – Kaphaj		Kapha-pittaj	
		No.	%	No.	%	No.	%
< 10	0	0	0%	0	0%	0	0%
11 -15	1	0	0%	0	0%	1	10%
16 -20	1	0	0%	1	10%	0	0%
21 – 25	4	2	20%	1	10%	1	10%
26 -30	3	1	10%	1	10%	1	10%
> 30	1	1	10%	0	0%	0	0%
Total	**10**	**4**	**40%**	**3**	**30%**	**3**	**30%**

Table 5: Incidence of cases in relation to deha-prakriti & NIH-CPSI score in control group

NIH CPSI – Score	No. of Cases	Deha – Prakriti					
		Vata – Pittaj		Vata – Kaphaj		Pitta- Kaphaj	
		No.	%	No.	%	No.	%
< 10	0	0	0%	0	0%	0	0%
11 -15	0	0	0%	0	0%	0	0%
16 -20	0	0	0%	0	0%	0	0%
21 – 25	6	1	10%	3	30%	2	20%
26 -30	4	2	20%	1	10%	1	10%
> 30	0	0	0%	0	0%	0	0%
Total	**10**	**3**	**30%**	**4**	**40%**	**3**	**30%**

micturition, the normal function of Apanavayu is very essential. Under the heading of pathological conditions of urinary system it is mentioned that vitiation of Apanavayu is the primary cause for lot of voiding dysfunction conditions. Therefore this may act at any level of the micturition cycle. So, correction of the Apanavayu can be used as primary treatment for voiding dysfunction. Basti corrects the coordination of bladder, its outlet and external sphincter by establishing the normal

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neuromuscular physiology of micturition. This was also proved by the result of this study.

Basti karma is considered as Shreshta (superior) treatment of choice for Vata vitiated conditions.[20] Basti therapy corrects vitiated vayu as Ushna guna of the Swedana therapy is opposite to the quality of Vata, Asthapana basti acts as Shodhana by which Vata dosha nirharana (elimination of vitiated Vata) take place, thereby normal function of Vata re-established, Anuvasana drugs used for the therapy are oily those have go Sneha, Ushna, Guru qualities rectifies the vitiated Vata. Correction of Vayu might cause normalization of neuromuscular coordination and neurophysiologic function of the micturition. Alternative hypothesis for mode of action of Basti therapy is that the therapy may alter the dynamic components responsible for voiding dysfunction. The medicaments used for basti therapy is in warm state, the temperature lies approximately between 39-43 degree˚ C.

CONCLUSION

Twenty one days of Ayurvedic therapy for CP/CPPS is safe and well tolerated and results in a modest, but statistically significant, improvement in the NIH-CPSI compared with standard / antimicrobial treatment. But this need further evaluation in large number of cases with the help of more sophisticated modern tools like cystometry, transrectal ultrasound, prostate biopsy etc.

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