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EFFECT OF *ANAND YOGA* IN THE MANAGEMENT OF *MOOTRASHMARI*

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ABSTRACT:

In India, approximately 5 -7 million patients suffer from stone disease and at least 1/1000 of Indian population needs hospitalization due to kidney stone disease. Thus, the disease is as widespread as it is old, particularly in countries with dry, hot climate. The incidence of calculi varies as per geographical distribution, sex and age group. The recurrence rate is 50 to 80%. Males are more frequently affected than the female and their ratio is 4:3. The incidence is still higher in the age group between 30-45 years and incidence declines after age of 50. Stones are an age-old anguish of the human body and occur at several sites particularly in Kidney, Urinary bladder and Ureter. It is very common metabolic disorder in all the afflictions. *Ashmari* is considered as *Mahagada* being difficult to cure, *marmaashrayi* and involvement of *Bahu dosha*. *Ashmari* is *tridoshaja* in origin. *Basti* is *vyakta stana* of *Ashmari* and *basti* is also a *pranayatana.* It is a fatal disease as it needs surgical intervention. On prognosis this disease is *kruchasaadhya*. Now in this era, there are many treatment modalities like Flush out Therapy and Surgical procedure are developed in this regard but failed in treating the root cause and recurrence of disease, as these procedures cannot avoid the pathogenesis behind the formation of stone results in recurrence of stone which is becoming a great problem and constant efforts are being made to evolve an effective treatment as well as prevention and recurrence of disease. It is the time for the medical science to give it's best to treat the condition effectively. In this connection an effort has been made to establish the efficacy of *Anand yoga* -an herbal preparation in the management of *Mootrashmari* (Renal calculi). Detailed study is described here.

Key Words: *Mootrashmari*, Renal Calculi, *Anand yoga.*

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INTRODUCTION

Ashmari is a disease in which there is formation of stone. *Ashmari* specifically called as *Mootrashmari* is a disease of *Mootravah srotas*. It is considered as one among the *Asthamahagada* (eight most deadly diseases), which has been described elaborately in Ayurvedic classic. Acharya Sushruta has delt separate chapter for this disease. The information regarding *Ashmari* is available in almost all Samhitas. This infers the prevalence of *Ashmari* since the inception of medicine in India. Urinary stone constitute one of the commonest diseases in our country and pain due to kidney stones is known as worse than that of labour pain. Among all the pain, abdominal pain always drags not only patient's attention but also the curiosity of the surgeon. Especially pain abdomen mimics the situation. *Ashmari* is one among the cause for pain abdomen.

In India, approximately 5 -7 million patients suffer from stone disease and at least 1/1000 of Indian population needs hospitalization due to kidney stone disease. Thus, the disease is as widespread as it is old, particularly in countries with dry, hot climate. The incidence of calculi varies as per geographical distribution, sex and age group. In India, 12% of the people is estimated to have urinary stones, out of which 50% may end up with loss of kidneys or renal damage. Also, near 15% of the people of northern India affected from urinary stones[1]. . In India urolithiasis affects about 2 million people every year[2]. The recurrence rate is 50 to 80%. Males are more frequently affected than the female and their ratio is 4:3. The incidence is still higher in the age group between 30-45 years and incidence declines after age of 50. Stones are an age-old anguish of the human body and occur at several sites particularly in Kidney, Urinary bladder and Ureter. It is very common metabolic disorder in all the afflictions.

Ashmari is considered as *Mahagada* being difficult to cure[3], *marmaashrayi* and involvement of *Bahu dosha*. *Ashmari* is *tridoshaja* in origin. *Basti* is *vyakta stana* of *Ashmari* and *basti* is also a *pranayatana.* It is a fatal disease as it needs surgical intervention. On prognosis this disease is *kruchhrasaadhya*. Now in this era, there are many treatment modalities like Flush out Therapy and Surgical procedure are developed in this regard but failed in treating the root cause and recurrence of disease, as these procedures cannot avoid the pathogenesis behind the formation of stone results in recurrence of stone which is becoming a great problem and constant efforts are being made to evolve an effective treatment as well as prevention and

recurrence of disease. It is the time for the medical science to give it's best to treat the condition effectively.

In Ayurvedic classics anatomy of urinary system, formation of urine and mechanism of the stone formation are explained in detail. The symptoms of *Mootrashmari* like *teevra vedana* over *nabhi, vasti, sevani* and *medhra* during micturition, aggravation of pain during running, jumping, walking long distance etc[4]. go in accordance with the symptoms of urolithiasis of modern science. Hence urolithiasis can be co-related with *Mootrashmari* mentioned in Ayurvedic classics. The process of stone formation is called Urolithiasis. Most calculi arise in kidney when urine becomes supersaturated with a salt that is capable of forming solid crystals. Symptoms arise as these calculi become impacted within the ureter as they pass towards the urinary bladder. Acute phase of kidney stone from the renal pelvis through the ureter gives rise to pain. Acharya Sushruta, father of Ancient surgery, while dealing with the management of *MutrAshmari*, stressed fist on different form *Ashmarighna yogas* like *ghrita, kshara , kashaya* .

In Ayurveda numbers of drugs are mentioned to treat *mutrashmari.* The compound has been taken from Bhaishjaya Ratnavali - *Ashmari roga adhikara shloka* 25-26. The compound is a *kshara* made up of *Tila panchang*, *Apamarga Panchanga*, *kadali stambha* , *Palash*, *Amalaki*, *kanda* and given in a dose of 250 mg twice in day with cow milk instead of sheep urine . This alteration of urine has been made due to unavailability of sheep urine with the consultation of guide. In this treatment *kshar* will be given to the patient for weekly follow up for the assessment of symptomatic effect. Treatment given for one month and observation will be made for three months to see the any recurrence of symptom.

This drug is administered in *Paneeya* form. This drug can be given on O.P.D basis and is administered without requiring hospitalization. Drugs are easily available, economical and are easy to administer, which are having *vedana shamaka*, *mutral* properties. Hence the clinical study has been undertaken to evaluate the efficacy of '*Anadyoga'*. The main aim of this particular study is inclined towards the disintegration, dissolution, dislodgement and expulsion of stone.

MATERIAL AND METHODS

For the clinical study 30 patients of *Mutrashmari* were collected as per the inclusion criteria from Shalya OPD and IPD of Vaidya Yagya Dutt Sharma Ayurveda Mahavidyalaya Khurja, Bulandshahar. The patients were divided into two groups

consisting of 15 patients each. The patients of Group A were treated with Anand Yoga and that of Group B were treated with *kulattha churna* .

Criteria For Selection:

- Age between 18 to 60 years.
- Sex male and female.
- Clinical sign and symptoms of all types of *Mootrashmari*.
- Patients willing for trial and ready to give consent.

Exclusion Criteria:

- Patients below the age of 18 yrs. and more than 60 yrs
- Associated with any systemic disorder like cardiac disease, Diabetes mellitus, hypertension, liver disorder etc.
- Calculus with severe hydronephrosis
- Obstructive calculi with severe infection
- Calculi in pregnant women.

Investigations to be done :

- Ultrasonography Abdomen
- X- ray KUB
- Urine – Routine and Microscopic examination
- CBC
- Blood sugar fasting and pp
- KFT (if needed)
- IVP(if needed)

Drug, Dose & Duration :

	Group A	**Group B**
No. of Patients	15	15
Drug	*Anand Yoga*	*Kullatha churna*
Dose	250 mg twice daily	5gm twice daily
Anupana	Cow milk	Water
Duration	1 month	1 month
Follow up	On 30th day for 3 months	On 30th day for 3 months

Note : The textual reference of *anupana* for *Anand Yoga* is *Aja mutra* (Sheep Urine). But in this study cow milk is used instead of sheep urine. In consultation with our guide this alteration of urine has been made due to nonavailability of sheep urine.

CRITERIA FOR ASSESSMENT

Mootrakrichha

No pain	0
Mild pain	1
Moderate	2
Severe pain	3

Renal colic pain

No pain	0
Mild pain	1
Moderate	2
Severe pain	3

Hematuria

No bleeding	0
Spotting bleeding	1
Mild bleeding	2
Severe bleeding	3

I. Frequency of urine

No frequency of urine	0
Mild frequency of urine	1
Moderate frequency of urine	2
Severe frequency of urine	3

OBJECTIVE CRITERIA

Size of stone: was assessed by USG every 15 days in mm.

Site of stone: was assessed under USG guidance and graded as follows.

Grade 0 - Expelled

Grade 1 - Stone in bladder

Grade 2 - Stone in ureter

Grade 3 - Stone in renal pelvis

Number of stone: was assessed under USG & x-ray guidance and graded as follows.

Grade 0 – No stone

Grade 1 - One stone

Grade 2 - Two & more than two (multiple)

Table NO.1 . Showing Chief complaint of patient in both groups.

CHIEF COMPLAINT	GROUP-A	GROUP-B	TOTAL	PERCENTAGE
Pain	15	15	30	100%
Dysuria	15	15	30	100%
Hematuria	15	15	30	100%
Burning micturition	10	9	19	63.33%

It was observed from the above table that out of 30 patients all patients are seen with pain 30(100%) which contributes to 15 in each group ,likewise 30(100%) where seen with Hematuria which was contributed by 15 in group-A & 15 patients in group B, like wise 19(63.33%) where seen with burning micturition which contributes to 10 in group – A and 9 in group – B, likewise 100(100%) which were seen with Dysuria which were contributed with 15 patients in group A and 15 patient in group B.

Table NO.2. Showing Associated complaint of patient in both groups.

AssociatedComplaint	Group A	Group B	Total	Percentage

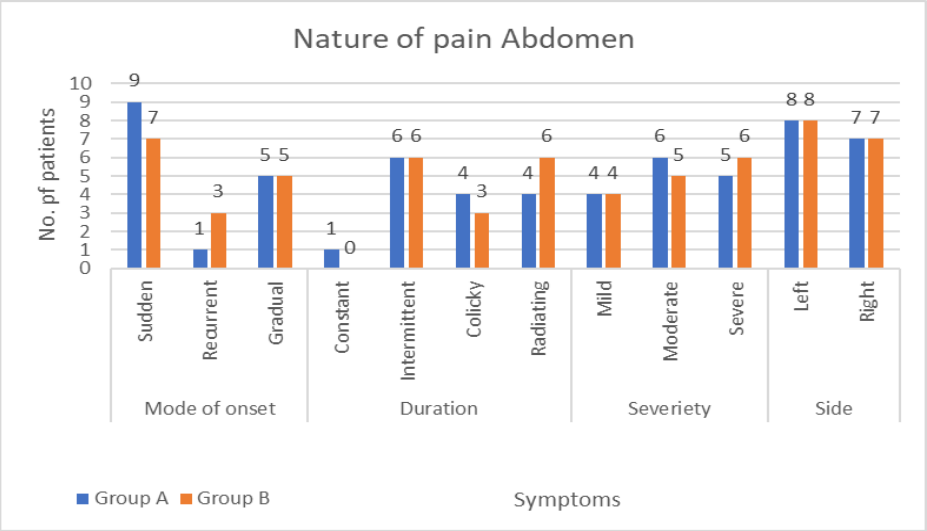
Fever	8	5	13	43.3 %
Nausea	9	9	18	60 %
Vomiting	4	10	14	46.6 %

It was observed from the above table that out of 30 patients majority of patients were seen with Nausea 18(60%) which contributes to 9 in group –A and 9 in group- B , likewise Vomiting 14(46.6%) which contributes to 4 in group –A and 10 in group –B, like wise Fever 13(43.33) which contributes to 8 in group A and 5in group–B. .

Table NO.3- Showing Pain Abdomen of patient of both groups.

Pain abdomen		Group-A	Group-B	Total	Percentage
Mode of Onset	Sudden	9	7	16	53.3 %
	Recurrent	1	3	4	13.3 %
	Gradual	5	5	10	33.3 %
Duration	Constant	1	0	1	3.3 %
	Intermittent	6	6	12	40 %
	Colicky	4	3	7	23.3 %
	Radiating	4	6	10	33.3 %
Severity	Mild	4	4	8	26.6 %
	Moderate	6	5	11	36.6 %
	Severe	5	6	11	36.6 %
Side of stone	Left	8	8	16	53.3 %
	Right	7	7	14	46.6 %

Graph No : 1 (Table No:3) – Showing nature of pain Abdomen in the patients of *Mootrashmari*



It was observed from the above table that out of 30 patients in the incidence of mode of onset of pain 16(53.33%) were having sudden onset which contributes to 9 in group-A and 7 patient in group-B, 4(13.33%) were having recurrent onset which contributes to 1 patient in group-A and 3 patients in group –B, likewise 10(33.3%) having Gradual onset which contributes to 5 patients in each group.

In the incidence of duration 1(3.33%) patients had constant pain which contributes to 1 patients in group-A only. Likewise 12(40%) patients were having intermittent pain which contributes to 6 patient in group-A ,6 patients in group –B, likewise 7(23.33%) patients were having colicky pain which contributes to 4 patient in groups –A and 3 patient in group – B, like wise10(33.33%) patients were having radiating pain which contributes to 4 patients in group-A and 6 patients in group-B.

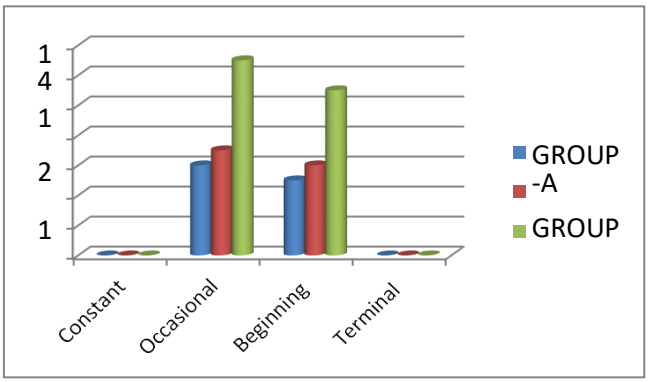
In the incidence of severity 11(36.66%) patients had severe pain which contributes to 5 patients in groups –A, 6 patients in group –B, likewise 11(36.66%) had moderate onset which contributes to 6 patient in groups –A and 5 patient in group-B. likewise 8(26.66%) patients had mild pain which contributes to 4 patients in groups –A and 4 patient in group - B.

In the incidence of side of pain 16 (53.33%) patients had pain in left side which was contributed by 8 patients in each group, likewise 14(46.66%) patients had pain in right side which was contributed by 7 patients in each group.

Table NO: 4. - Showing Haematuria of patients in both groups

	GROUP-A	GROUP-B	TOTAL	PERCENTAGE
Constant	0	0	0	0%
Occasional	9	10	19	63.3%
Beginning	6	5	11	36.6%
Terminal	0	0	0	0%

Graph No.2 (Table No 4)-. Showing Haematuria of patient in both groups



The above table that out of 30 patients with begining Haematuria which that majority of patients were seen with Occasional Haematuria 19(63.33) which contributes to 9 in group – A and 10 in group–B likewise 11(36.66%) where seen contributes to 6 in group – A and 5 in group –B, no patients seen in Terminal Haematuria and constant heamaturia.

RESULTS

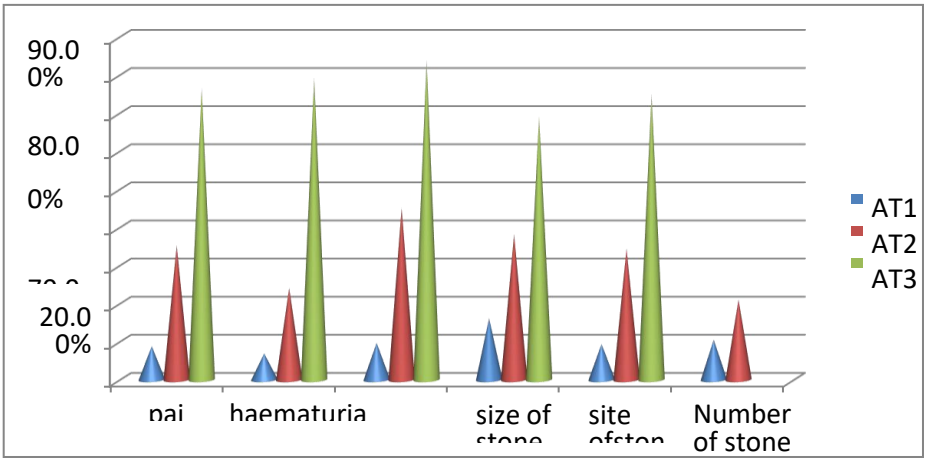
Table NO.5 - Showing effectiveness of Drug in GROUP-A

Sign /symptom	Mean ± S.D			Df	p-value	t-value	Effectiveness %	Remark
Pain Abd. (Renal Coloc)	BT	AT1	2.06±0.20		_	1.87	8.82%	NS
	2.26±0.18	AT2	1.46±0.16		<0.01	5.52	35.29%	HS
		AT3	0.53±0.13		<0.01	14.66	76.47%	HS
Haematuria	BT	AT1	1.8±0.17		_	1.46	6.89%	NS
	1.93±0.20	AT2	1.46±0.13		<0.01	3.5	24.13%	HS
		AT3	0.4±0.13		<0.01	6.48	79.31%	HS

Dysuria (Mutra Kricchra)	BT 2.6±0.20	AT1	1.86±0.21	14	<0.01	1.87	9.67%	NS
		AT2	1.13±0.16		<0.01	6.08	45.16%	HS
		AT3	0.33±0.12		<0.01	8.40	83.87%	HS
Size of stone	BT 4.42±0.58	AT1	3.8±.31		<0.01	3.77	16.17%	HS
		AT2	2.8±.27		<0.01	7.27	38.23%	HS
		AT3	1.4±0.37		<0.01	10.22	69.11%	HS
Site of stone	BT 22.2±0.8	AT1	1.93±0.24		_	1.8	9.37%	NS
		AT2	1.4±0.16		<0.01	6.20	34.37%	NS
		AT3	0.53±0.13		<0.01	8.41	75%	HS
Number of Calculi	BT 1.26±0.11	AT1	1.13±0.13		_	1.46	10.52%	NS
		AT2	1±0.09		<0.05	2.25	21.05%	S
		AT3	0.53±0.13		<0.01	3.21	57.89%	HS

S.D–Standard deviation, B.T–Before treatment, A.T–After treatment, df– Degree of freedom, t–Test of significant, p–Probability, H.S- Highly significant, N.S.- Non significant.

Graph No : 3 (Table No-5) - SHOWING EFFECTIVENESS OF GROUP A:



The above statistical analysis shows that in case of pain in abdomen the mean ± S.E. before treatment was 2.6±0.18 and was reduced to 2.06±0.20 after 30 days, 1.46±0.16 after 60 days, and 0.53±0.13 after 90 days. The test of significance shows that the drug is not Significant to reduce pain in abdomen in AT1 and Highly Significant with the P-value <0.01 in AT2 &AT3 respectively .

In case of Haematuria the mean ± S.E. before treatment was 1.93±0.20 and was changed to 1.8±0.17 after 30 days, 1.46±0.13

after 60 days, and 0.4±0.13 after 90 days. The test of significance shows that the drug is not Significant to reduce Haematuria in AT1, and highly significant to reduce with the P-value <0.01 in AT2 &AT3 respectively.

In case of Dysuria the mean ± S.E. before treatment was 2.06±0.20 and was reduced to 1.86±0.21 after 30 days, 1.13±0.16 after 60 days, and 0.33±0.12 after 90days. The test of significance shows that the drug is not Significant to reduce Dysuria in AT1 and Highly Significant with the P-value <0.01 in AT2 &AT3 respectively.

In case of Size of stone the mean ± S.E. before treatment was 4.53±0.17 and was reduced to 3.8±0.31 after 30 days, 2.8±0.27 after 60 days, and 1.4±0.37 after 90 days. The test of significance shows that the drug is Highly Significant to reduce Size of stone with the P-value <0.01 in AT1, AT2 &AT3 respectively.

In case of Site of stone the mean ± S.E. before treatment was 2.13±0.19 and was changed to 1.93±0.24 after 30 days, 1.4±0.16 after 60 days, and 0.53±0.13 after 90 days. The test of significance shows that the drug is Not Significant to change Site of stone in AT1& Highly Significant with the P-value <0.01 in AT2 &AT3 respectively

In case of Number of Stone the mean ± S.E. before treatment was 1.26±0.11 and was reduced to 1.13±0.13 after 30 days, 1±0.09 after 60 days, and 0.53±0.13 after 90 days. The test of significance shows that the drug is not Significant to reduce Number of Stone in AT1 and Significant with the P-value <0.05 in AT2 & Highly Significant with the P-value <0.01 in AT3.

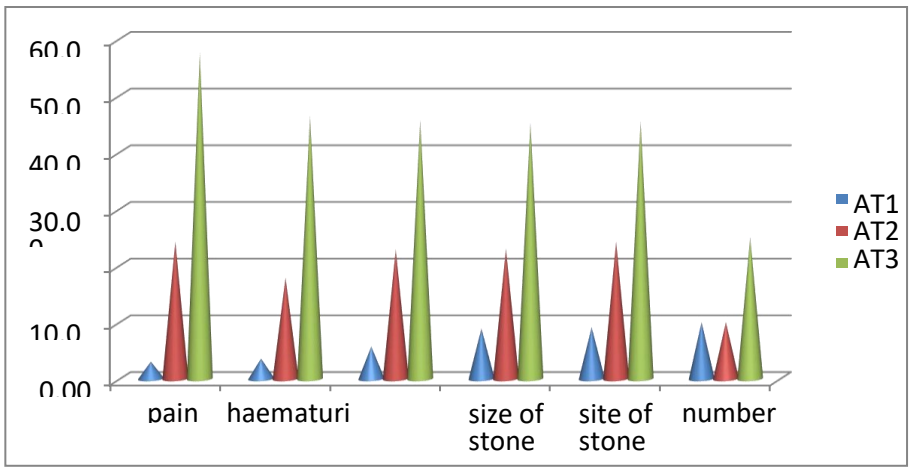
Table NO. 6 - Showing effectiveness of Drug in GROUP-B

Sign /symptom	Mean ± S.D			Df	p-value	t-value	Effectiveness %	Remark
Pain (Renal colic)	BT	AT1	2.13±0.16		_	1	3.03%	NS
	2.2±0.17	AT2	1.66±0.15		<0.01	3.22	24.24%	HS
		AT3	0.93±0.20		<0.01	8.26	57.57%	HS
Haematuria	BT	AT1	1.8±0.2		_	1	3.57%	NS
	1.86±0.21	AT2	1.53±0.16		<0.05	2.64	17.85%	S
		AT3	1±0.25		<0.01	9.53	46.42%	HS
Dysuria	BT	AT1	2.2±0.10		_	1.46	5.71%	NS
	2.33±0.12	AT2	1.8±0.2		<0.01	4	22.85%	HS
		AT3	1.26±0.20		<0.01	6.95	45.71%	HS
	BT	AT1	4.1±0.38		_	1.87	8.88%	NS

Size of stone	4.5±0.25	AT2	3.46±0.36	14	<0.01	5.56	22.96%	HS
		AT3	2.46±.38		<0.01	7.09	45.18%	HS
Site of stone	BT	AT1	2±0.23		_	1.38	9.09%	NS
	2.2±0.2	AT2	1.66±0.21		<0.01	3.32	24.24%	HS
		AT3	1.2±0.2		<0.01	4.58	45.45%	HS
Number	BT	AT1	1.2±0.14		_	1.46	10%	NS
	1.33±0.12	AT2	1.2±0.14		_	1.46	10%	NS
		AT3	1±0.16		<0.01	2.64	25%	S

S.D–Standard deviation, B.T–Before treatment, A.T–After treatment, df– Degree of freedom, t–Test of significant, p–Probability, H.S- Highly significant N.S.- Non significant.

GRAPH NO : 4(Table No- 6) - SHOWING EFFECTIVENESS OF GROUP B



The above statistical analysis Dysurea t in case of pain in Abdomen the mean ± S.E. before treatment was 2.2±0.17 and was reduced to 2.13±0.16 after 30 days, 1.66±0.15 after 60 days, and 0.93±0.20 after 90 days. The test of significance shows that the drug is not Significant to reduce pain in Abdomen AT1 and Highly Significant with the P-value <0.01 in AT2 &AT3 respectively.

In case of Haematuria the mean ± S.E. before treatment was 1.86±0.21 and was changed to 1.8±0.2 after 30 days, 1.53±0.16 after 60 days, and 1±0.25 after 90 days. The test of significance shows that the drug is not Significant to reduce Haematuria in AT1 and Significant with the P-value <0.05 in AT2 & Highly Significant with the P-value <0.01 in AT3.

In case of Dysuria the mean ± S.E. before treatment was 2.33±0.12 and was

reduced to 2.2±0.10 after 30 days, 1.8±0.2 after 60 days, and 1.26±0.20 after 90 days. The test of significance shows that the drug is not Significant to reduce Dysuria in AT1 and Highly Significant with the P-value <0.01 in AT2 & AT3 respectively.

In case of Size of Stone the mean ± S.E. before treatment was 4.5±0.25 and was reduced to 4.1±0.38 after 30 days, 3.46±0.36 after 60 days, and 2.46±0.38 after 90 days. The test of significance shows that the drug is not Significant to reduce Size of Stone in AT1 and Highly Significant with the P-value <0.01 in AT2 &AT3 respectively.

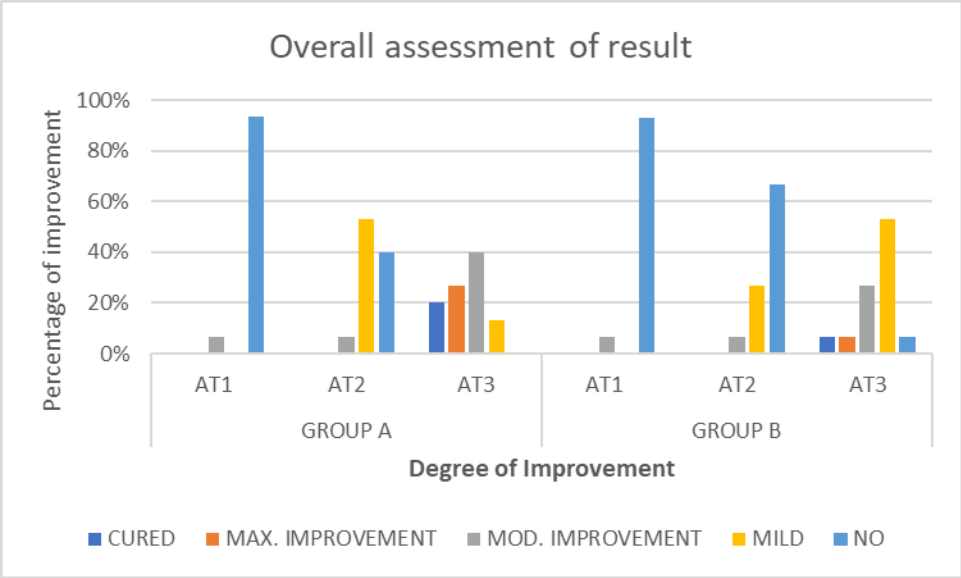
In case of Site of Stone, the mean ± S.E. before treatment was 2.2±0.2 and was changed to 2±0.23 after 30 days, 1.66±0.21 after 60 days, and 1.2±0.2 after 90 days. The test of significance shows that the drug is not Significant to change Site of Stone in AT1 and Highly Significant with the P-value <0.01 in AT2 &AT3 respectively.

In case of Number of Stone the mean ± S.E. before treatment was 1.33±0.12 and was reduced to 1.2±0.14 after 30 days, 1.2±0.14 after 60 days, and 1±0.16 after 90 days. The test of significance shows that the drug is not Significant to reduce Number of Stone in AT1 and AT2 respectively & Significant with the P-value <0.05 in AT3.

Table No. 7 - OVERALL CLINICAL ASSESSMENT OF RESULT

RESULT	GROUP – A			GROUP – B		
	AT 1	AT 2	AT 3	AT 1	AT 2	AT 3
Cured	0	0	3 (20%)	0	0	1 (6.66%)
Maximum Improvement	0	0	4 (26.66%)	0	0	1 (6.66%)
Moderate Improvement	1 (6.66%)	1 (6.66%)	6 (40%)	1 (6.66%)	1 (6.66%)	4 (26.66%)
Mild Improvement	0	8 (53.3%)	2 (13.33%)	0	4 (26.66%)	8 (53.3%)
No improvement	14 (93.3%)	6 (40%)	0	14 (93.3%)	10 (66.66%)	1 (6.66%)

Graph No.5 (Table No -7) - OVERALL CLINICAL ASSESSMENT OF RESULT



Group –A

Clinical assessment of result of Group-A shows that on 30th day 1 patient had moderate improvement, whereas 14 patients had no improvement. On 60th day 1 patients had moderate improvement; whereas 8 patents had mild improvement whereas 6 patients had no improvement. On 90th day 3 patients had cured, 4 patients had maximum improvement and 6 patients had moderate improvement and 2 patients had mild improvement.

Group-B

In the similar way, Clinical assessment of result of Group-B shows that on 30th day 1 patient had moderate improvement, whereas 14 patients had no improvement. On 60th day 1 patients had moderate improvement; 4 patients had mild improvement, whereas 10 patients had no improvement. On 90th day 1 patients had cured 1 had maximum improvement, 4 patients had moderate improvement and 8 patients had Mild improvement and 1 patient had no improvement.

DISCUSSION:

Discussion on subjective criteria:

The effectiveness of the treatment adopted in both the groups in respect to each parameter is tabulated on the basis of the difference between the scores before treatment and after treatment.

Pain: The effectiveness of *Anand Yoga* is 76.47% with t-value 14.66 and the level of significance of p-value is <0.01, which is highly significant. The effectiveness of group-B is 57.57% with t-value 8.26 and the level of significance of p- value is <0.01. *Anand Rasa* has *Ushana Veerya* which acts as *Kapha vatahara*. Hence it is showing good response on pain in group-A patients.

Haematuria: The effectiveness of group-A is 79.31% with t-value 6.48 and the level of significance of p-value is <0.01, which is highly significant. The effectiveness of group-B is 46.42% with t-value 9.53 and the level of significance of p-value is <0.01. The effectiveness of *Anand Yoga* over the group-A patients are showing good response on Haematuria, because *Amalaki*, *Kadali* are having Madhura rasa and *Raktha Pitta Shamaka* due to this property it acts as *Rakthasthambhaka*.

Dysuria: The effectiveness of group-A is 83.87% with t-value 8.40 and the level of significance of p-value is <0.01. The effectiveness of group-B is 45.71% with t-value 6.95 and the level of significance of p-value is <0.01, which is highly significant. *Kadali Kshara*, *Apamarga* is having *mootrajanaka* property, which acts like diuretics and due to large intake of water also increases the urine output properly, which subsided dysuria so it is highly significant than *Kulattha Churna*.

Objective criteria:

Size of stone: The effectiveness of group-A is 69.11% % with t-value 10.22 and the level of significance of p-value is <0.01, which is highly significant. The effectiveness of group-B is 45.18% with t-value 7.09 and the level of significance of p-value is <0.01, which is highly significant. It shows that the *Anand Yoga* has *kapha hara guna*. By means of this *guna* it is capable to reduce the size of stone than the *Kulattha Churna*.

Site of stone: The effectiveness of group-A is 75% with t-value 8.41 and the level of significance of p-value is <0.01, which is highly significant. The effectiveness of group-B is 45.45% with t-value 4.58 and the level of significance of p-value is <0.01, which is highly significant. Due to *mootrala* and *kapha hara guna* it shows that *Anand Yoga* is capable to change the site of stone.

Number of stone: The effectiveness of group-A is 57.89% with t-value 3.21 and the level of significance of p-value is <0.01, which is highly significant. The effectiveness of group-B is 25% with t-value 2.64 and the level of significance of p-value is <0.05, which is significant. Due to *mootrala* and *kapha hara guna*, it also shows that *Anand Yoga* is capable to reduce the number of stone.

Overall clinical assessment of result:

Finally the clinical assessment was carried out on overall results of the effect of *Anand Yoga* and *Kullath Churna* on each individual signs and symptoms and collectively presented in the form of cured, maximum improved, moderate improved, mild improved and no improvement. However it was evident that in group-A after 45 days 3 patients were cured(100%) ,4 had maximum (75%-99%)

improvement, 6 had moderate (50%-74%) improvement, 2 had mild (25%-49%) improvement and nil patient with no improvement. In group-B 1 patient were cured(100%), 1 had maximum (75%-99%) improvement, 4 had moderate (50%-74%) improvement,8 patient had mild(25%-49%) & 1 patient had no improvement (>25%). *Anand Yoga* has a significant role in the management of *Mootrashmari.*

CONCLUSION:

The review of literature and clinical study provides certain useful conclusionsas follows-

- In the observation it was found that, the lithotryptic action of the Ananda Yoga was showing significant effect on reducing Pain intensity, reducing Haematuria, reducing Dysuria, reducing Size of stone, reducing site of stone and also reducing the number of stones.
- In this way it can be said that “Ananda Yoga” is curative, safe and effective in reliving symptoms in early stage of disease and also useful in patients who are unwilling for surgery.
- “Ananda Yoga” helps in relieving agony and discomfort to the patients without hospitalization. Hence it may be a poor man’s choice as it is easily available, economical and effective.
- So, the use of “Ananda Yoga” is an ambulatory type of treatment which gives no side effects & also can be used as a better alternative to surgery.

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