

A COMPARATIVE CLINICAL PROSPECTIVE STUDY TO ASSESS VIRECHANA AND ARDHAMATRIKA BASTI IN GOUTY ARTHRITIS W S R TO VATARAKTA

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ABSTRACT

Ayurveda, a system of natural healing from the very ancient *vedic* culture of India is more than merely a system of treating illness but is the science of life that provides a body of wisdom, guidelines on ideal routines, diet and behavior. Derangement of function within the body may occur due to multiple causes like diet, life style or environment. *Vatarakta* is caused by vitiation of *Vata* and *Rakta*. Aggravated *Vata* blocked by vitiated *Rakta*, in turn leading to further aggravation of *Vata*. Thus aggravated *Vata* vitiates the *Rakta* leading to condition *Vatarakta*. In the initial stage, the hands and feet are affected. The illness then spreads all over the body like rat poison. Gouty Arthritis is a medical condition usually characterized by recurrent attacks of acute inflammatory arthritis. It is characterized by painful swelling of the joints and the tenderness and redness in the affected areas. Gout pains are usually developed in the joints of the legs, especially the big toe. The treatment of *Vatarakta* is well explained in *Ayurveda* including *Shodhana Chikitsa*, *Shamana Chikitsa*, and *Rasayana Prayoga*. Here a study is conducted under Advance Research Wing, RGUHS Bangalore to evaluate the effect of *Basti* and *Virechana* in *Vatarakta* on 100 subjects in 2 groups and results are obtained.

Keywords: *Vatarakta*, Gouty arthritis, *Basti*, *Virechana*.

INTRODUCTION

Ayurveda, a system of natural healing from the very ancient *vedic* culture of India is more than merely a system of treating illness but is the science of life that provides a body of wisdom, guidelines on ideal routines, diet and behavior. Derangement of function within the body may occur due to multiple causes like diet, life style or environment. *Vatarakta* is caused by

vitiation of *Vata* and *Rakta*. Aggravated *Vata* blocked by vitiated *Rakta*, in turn leading to further aggravation of *Vata*. Thus aggravated *Vata* vitiates the *Rakta* leading to condition *Vatarakta*^{1, 2, 3, 4, 5}. In the initial stage, the hands and feet are affected. The illness then spreads all over the body likes rat poison^{6, 7, 8, 9}. Gouty Arthritis is a medical condition usually characterized

by recurrent attacks of acute inflammatory arthritis. It is characterized by sudden, sever attacks of pain, swelling, redness & tenderness in the joints, often the joints at the base of the big toe.¹⁰The treatment of *Vatarakta* is well explained in *Ayurveda* including *Shodhana Chikitsa*, *Shamana Chikitsa*, and *Rasayana Prayoga*. The *Shodhana* procedures like *Basti*, *Raktamokshana*, and *Virechana* are considered as most effective line of treatment but *Shamana Oushadhis* also play a major role in the management of *Vatarakta*. About 75% of all Gout pains originate in the big toe. Apart from the big toe, other joints like ankle, toe heels, hand, wrist and elbows can also be affected. Purine is one of the nitrogen bases in the human body and components of DNA. The enzyme Xanthine Oxide is responsible for converting the purine into uric acid, which eliminated through urination. The excessive deposit of uric acid in the body due to improper metabolism or reduced renal function will lead to Gouty Arthritis. Intakes of more purine rich food, obesity, drugs for hypertension, intake of alcohol, family history are some of the reasons for improper metabolism.¹¹ In the present era due to rapid modernization in the developing countries like India makes the culture of fast food, sedentary changes in life style etc. has given rise to increase in the number of joint disorders. Among the joint disorders *Vatarakta* / Gouty Arthritis considered to be serious of its chronicity. In the line of treatment of Gouty Arthritis / *Vatarakta Mala Sodhana* plays an important role as it is also a case of Hyperurecemia caused due to accumulation of *Mala* (uric acid) in the dependent joints which is similar to *Gambhira Vatarakta*. Among the *Shodhana* procedures *Basti* and *Virechana* is more emphasized by *Acharyas*. *Vatarakta* is one of the *Madhyama Rogamarga* the best treatment for *Madhyama Rogamarga* is *Basti* because it will mainly affect in *Asthi*, *Sandhi*, *Snayu*, etc.^{12,13}

In this study, 100 patients were selected randomly and placed into two groups, Group A and Group B, with 50 subjects in each group. Group-A received *Amapachana* with *Hareetakyadi Churna*¹⁴, *Kala Basti* with *Dasamoola Kashaya*, and *Balaguduchyadi Taila*¹⁵ (*Anuvasana*) and *Balaguduchyadi Taila* for

Abhyanga with *Mridu Swedana* followed by *Shamanaoushadhis - Amritadi guggulu*¹⁶ 1Tab bd with *Kokilakshadi Kashayam*¹⁷ (20 ml) bd as *Anupana*. Group-B received *Amapachana* with *Hareetakyadi Churna*, *Snehapana* with *Panchatikta Guggulu Ghrita*¹⁸ and *Virechana* with *Nimbamritadi Eranda Taila*¹⁹ and *Balaguduchyadi Taila* for *Abhyanga* with *Mridu Swedana* followed by *Shamanaoushadhis - Amrita Guggulu* 1Tab bd with *Kokilakshadi Kashayam* (20 ml) bd as *Anupana*. The follow up period was 48 days for Group A and 30 days for Group B. The assessment was done before the treatment and soon after the completion of the course of the treatment thus the total assessment was done based on change in improvement observed, before and after the treatment.

AIM & OBJECTIVES:

1. To evaluate and compare the efficacy of *Ardhamatrika Basti* and *Virechana* in *Vatarakta*.
2. To assess the effect of *Basti* and *Virechana* along with *Shamanoushadi* on raised uric acid level in gouty arthritis.

STUDY DESIGN: A Comparative Clinical Trial Study.

INCLUSION CRITERIA:

1. Subjects presenting with clinical features of *Vatarakta*/ Gouty Arthritis.
2. Subjects with chronicity of disease more than 6 months and less than 5 yrs.
3. Subjects of either sex between age group of 20-70 yrs.
4. Subjects fit for *Basti Karma* and *Virechana Karma*.
5. Subject showing the uric acid level above 6mg/dl (Above Biological Range).

EXCLUSION CRITERIA

- Subjects with uncontrolled diabetes, systemic disorders and endocrine disorders.
- Subjects with autoimmune disease of joints.
- Subjects with infection and communicable diseases.
- Subjects not fit for *Basti Karma* and *Virechana Karma*.

PARAMETERS OF THE STUDY

SUBJECTIVE PARAMETERS

- *Sandhi Graha* (Stiffness of Joint)
- *Sandhi Shoola* (Joint Pain)
- *Shotha* (Inflammation)

OBJECTIVE PARAMETERS

- Serum Uric acid before and after treatment.
- *Vaivarnya* (Colour of Affected Joint).
- *Sparsha Asahatva* (Tenderness).
- McGill pain scale for pain assessment

Table 1 Showing grading of Subjective parameters:

Parameter	Finding	Points
<i>Sandhi Shula</i> (pain)	None	0
	Mild	1
	Moderate	2
	Severe	3
	Extreme	4
<i>Sandhi Graha</i> (Stiffness)	No stiffness	0
	Stiffness occasional, relieved by its own	1
	Stiffness relieved by movements	2
	Stiffness relieved by medication	3
<i>Shotha</i> (swelling)	None	0
	Slight	1
	Moderate	2
	bulging beyond joint margins	3

Table 2 Showing grading of Objective parameters:

<i>Vaivarnya</i> (Discolouration)	No discolouration	0
	Occasional, relieved by its own.	1
	Present, but relieved by relief in swelling	2
	Persistent, not relieved by medication	3
<i>Sparsha asahatva</i> (tenderness)	no tenderness	0
	patient complains of pain	1
	patient complains of pain and winces	2
	patient complains of pain, winces and withdrew joint	3

Table 3 And 4 Showing Interventions in Both Groups:

Table 3:

Group A :	ARDHAMATRIKA BASTI in Kala Basti Schedule
<i>AmaPachana</i>	<i>Hareetakyadi Choorna</i> for <i>AmaPachana</i> till the appearance of <i>Nirama lakshana</i> . Dose – 5gm twice a day with <i>Ushnajala Anupana</i> Before Food.
<i>Sthanika Abhyanga</i> and <i>Bashpa Swedana</i>	<i>Balaguduchyadi Taila</i>
<i>Anuvasana Basti:</i>	<i>Balaguduchyadi Taila</i> – 60ml
<i>Ardhamatrika Nirooha Basti:</i>	<i>Dasamoola Kashayam</i> 500ml <i>Sneha- Balaguduchyadi taila-60ml</i>

	<i>Kalka-shatahva-15gms</i> <i>Lavanam- saindhava lavana-5gms</i> <i>Makshikam-30ml</i> Dosage: Depend upon the <i>Roga</i> and <i>Rogi Bala</i> Duration : 16 Days <i>Pariharakala</i> : 32 Days
<i>Shamanoushadi</i>	<i>Amrita guggulu (500mg)</i> 1tab bd with <i>Kokilaksha Kashaya</i> 20ml bid as <i>Anupana</i> . Follow up : 48 Days

Table 4

Group B	<i>Virechana with Nimbamritadi Eranda Taila</i>
<i>AmaPachana</i>	<i>Hareetakyadi Choorna</i> for <i>Ama Pachana</i> till the appearance of <i>Nirama Lakshana</i> . Dose – 5gm twice a day with <i>Ushnajala Anupana</i> Before Food.
<i>Snehapana:</i>	<i>PANCHATIKA GUGGULU GHRITA</i> . <i>HrasiyasiMatra</i> of <i>Sneha</i> i.e. 30ml In increasing dosage till <i>Samyak Snigdha Lakshanas</i> seen upto 7 days <i>Mridu koshta</i> -120ml <i>Madhyama koshta</i> -180ml <i>Krura koshta</i> -240ml <i>Anupana- Ushnodhaka</i> <i>Kala - Ananna Kala</i>
<i>Abhyanga and Bashpa swedana</i>	<i>Balaguduchyadi taila</i>
<i>Virechana</i>	<i>Nimbamritadi Eranda Taila</i> Dose – according to <i>Koshtha</i> of the patient <i>Mridu koshta</i> -30ml <i>Madhyama koshta</i> -45ml <i>Krura koshta</i> - 60ml
<i>Samsarjana karma:</i>	<i>Samsarjana Karma</i> was followed based on <i>Shuddhi</i>
<i>Shamanoushadi</i>	<i>Amrita guggulu (500mg)</i> 1tab bd with <i>Kokilaksha Kashaya</i> 20ml bid as <i>Anupana</i> . Follow up : 30 Days

OBSERVATIONS

Out of 100 subjects studied in this series all the subjects i.e. 100 subjects were reported with *Sandhishoola*, *Sandhishotha*, 93 subjects were reported with *Sparshaasahatva*, 86 subjects were reported with *Sandhigraha* and 77 subjects were reported with

Vaivarnyatha. And maximum of 33 subjects were having S. Uric Acid between 7.1 to 9 mg/dl, 20 subjects were having S. Uric Acid between 9.1 to 10 mg/dl. 08 subjects were having S. Uric Acid between 10.1 to 11 mg/dl and 06 subjects were having S. Uric Acid between 06.1 to 07 mg/dl.

TABLE 5: Showing serum uric acid level of 100 subjects of *vatarakta*

S. Uric Acid	Group A	Group B	Total	%
6.1 to 7	04	02	06	06 %
7.1 to 8	17	16	33	33 %

8.1 to 9	15	18	33	33 %
9.1 to 10	12	08	20	20 %
10.1 to 11	02	06	08	08 %

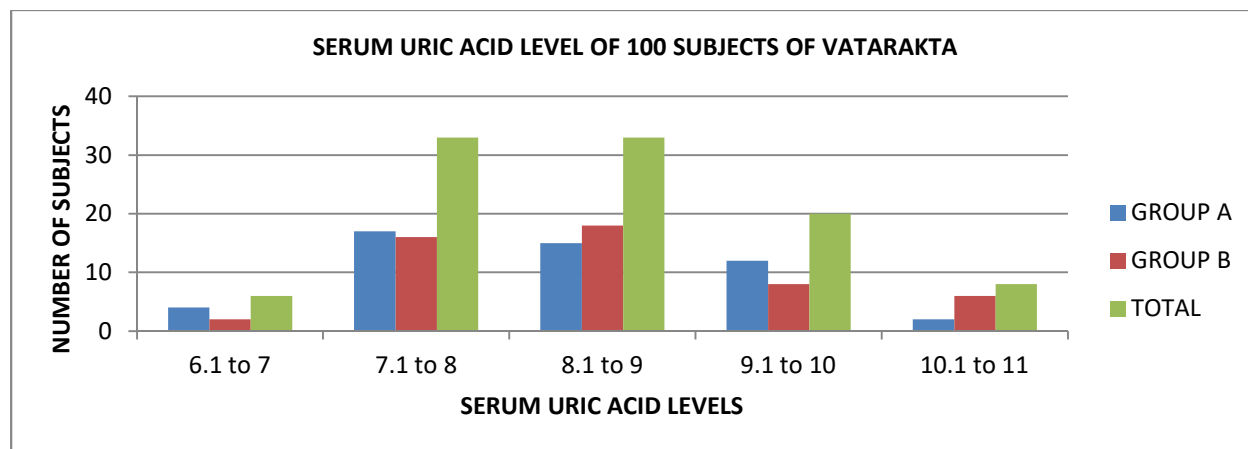


TABLE 6: Showing distributions according to the affected joints of 100 subjects of vatarakta:

Joints	Group A	Group B	Total	%
<i>Hasta parva Sandhi</i> (Interphalangeal) (Hand)	18	16	34	34
<i>HastaSamudgaSandhi</i> (Metacarpophalangeal)	12	10	22	22
<i>Manibandha</i> (Wrist)	15	18	33	33
<i>Koorpara</i> (Elbow)	10	12	22	22
<i>Pada parva Sandhi</i> (Interphalangeal) (feet)	20	19	39	39
<i>Pada Samudga Sandhi</i> (Metatarsophalangeal)	15	16	31	31
<i>Gulpha</i> (Ankle)	19	21	40	40
<i>Janu</i> (Knee)	26	23	49	49

TABLE 7: Showing symptoms (lakshana) wise distribution of 100 subjects of vatarakta:

Cardinal Symptoms	Group A	Group B	Total	%
<i>Sandhishoola</i>	50	50	100	100
<i>Sandhishotha</i>	50	50	100	100
<i>Sandhigraha</i>	40	46	86	86
<i>Sparshasahatva</i>	45	48	93	93
<i>Vaivarnata</i>	37	40	77	77

RESULTS

The therapies in Group A and Group B provided good improvement on the symptom of *Vatarakta* and the comparative efficacy of Group A with Group B also showed statistically significant results.

TABLE 8: Showing effect of therapy on subjective parameters in Group A

Parameter	No. Of Patients	Mean		Mean Diff	% relief	S.D.	S.E.	't' value	'p' value	Remarks
		BT	AT							
<i>Sandhi Graha</i>	50	2.64	0.66	1.98	75%	0.616	0.087	22.73	<0.001	S

<i>Sandhi Shoola</i>	50	2.22	0.32	1.9	85.58%	0.670	0.094	20.04	<0.001	S
<i>Sandhi shodha</i>	50	0.6	0.16	0.44	73.33%	0.803	0.113	3.869	<0.001	S

TABLE 9: Showing effect of therapy on objective parameters in Group A

Parameter	No. Of Patients	Mean		Mean Diff	% relief	S.D.	S.E.	't' value	'p' value	Remarks
		BT	AT							
Serum Uric acid	50	8.516	4.854	3.662	43%	1.0351	0.146	25.01	<0.001	S
Affected Joint Colour	50	1.18	0.16	1.02	86.44%	0.836	0.118	8.622	<0.001	S
<i>Sparsha Asahatva</i> (Tenderness).	50	1.82	0.18	1.64	90.10%	0.741	0.104	15.63	<0.001	S
MC GILL PAIN SCALE	50	3.21	0.92	2.2	71.34%	0.721	0.101	21.58	<0.001	S

TABLE 10: Showing effect of therapy on subjective parameters in Group B

Parameter	No. Of Patients	Mean		Mean Diff	% relief	S.D.	S.E.	't' value	'p' value	Remarks
		BT	AT							
<i>Sandhi Graha</i>	50	2.16	0.98	1.18	54.62%	0.589	0.083	14.21	<0.001	S
<i>Sandhi Shoola</i>	50	1.96	1	0.96	48.97%	0.527	0.074	12.86	<0.001	S
<i>Sandhi Shotha</i>	50	0.86	0.24	0.62	72.09%	0.718	0.101	6.12	<0.001	S

TABLE 11: Showing effect of therapy on objective parameters in Group B

Parameter	No Of Patients	Mean		Mean%		S.D.	S.E.	't' value	'p' value	Remarks
		BT	AT	Diff	relief					
Serum Uric acid	50	8.74	5.87	2.86	32.83%	1.017	0.143	19.87	<0.001	S
Affected Joint Colour	50	1.28	0.42	0.86	67.18%	0.632	0.089	9.60	<0.001	S
<i>Sparsha Asahatva</i> (Tenderness).	50	1.58	0.44	1.14	72.15%	0.721	0.102	11.17	<0.001	S
MC GILL PAIN SCALE	50	2.82	1.38	1.44	51.06%	0.875	0.123	11.63	<0.001	S

TABLE 12: Comparative efficacy of therapies on subjective parameters in Group A And Group B Using unpaired student's 'T' test:

Assessment Parameters	No. Of Patients	Group A			Group B			Unpaired t Test (Group A vs Group B)		Remarks
		Mean	S.D.	S.E.	Mean	S.D.	S.E.	't' value	'p' value	
			(+/-)	(+/-)		(+/-)	(+/-)			
<i>Sandhi Graha</i>	50	1.18	0.58	0.08	1.98	0.61	0.08	6.57	<0.05	S
<i>Sandhi Shoola</i>	50	0.96	0.52	0.07	1.9	0.67	0.09	7.71	<0.05	S
<i>Sandhi Shotha</i>	50	0.62	0.71	0.10	0.44	0.80	0.11	1.17	>0.05	NS

TABLE 13: showing comparative efficacy of therapies on objective parameters in Group A and Group B using unpaired student's 'T' test:

Assessment Parameters	No. Of Patients	Group A			Group B			Unpaired t Test (Group A vs Group B)		Remarks
		Mean	S.D.	S.E.	Mean	S.D.	S.E.	't' value	'p' value	
			(+/-)	(+/-)		(+/-)	(+/-)			
Serum Uric acid	50	3.66	1.03	0.14	2.86	1.01	0.14	3.85	<0.05	S
Affected Joint Colour	50	0.86	0.63	0.08	1.02	0.83	0.11	1.07	>0.05	NS
<i>Sparsha Asahatva</i> (Tenderness).	50	1.14	0.72	0.10	1.64	0.74	0.10	3.38	<0.05	S

Mc gill pain scale	50	2.2	0.72	0.10	1.44	0.87	0.12	4.69	<0.05	S
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TABLE 14: Showing total effect of therapy on different parameters in Group A & B (IN %):

Cardinal Features	Group A		%	Group B		%
	B.T.	A.F.		B.T.	A.F.	
<i>Sandhi Graha</i>	2.64	0.66	75%	2.16	0.98	54.62%
<i>Sandhi Shoola</i>	2.22	0.32	85.58%	1.96	1	48.97%
<i>Sandhi Shotha</i>	0.6	0.16	73.33%	0.86	0.24	72.09%
Serum Uric Acid	8.516	4.854	43%	8.74	5.87	32.83%
Affected Joint Colour	1.18	0.16	86.44%	1.28	0.42	67.18%
<i>Sparsha Asahatva</i> (Tenderness)	1.82	0.18	90.10%	1.58	0.44	72.15%
Mc gill pain scale	3.21	0.92	71.34%	2.82	1.38	51.06%

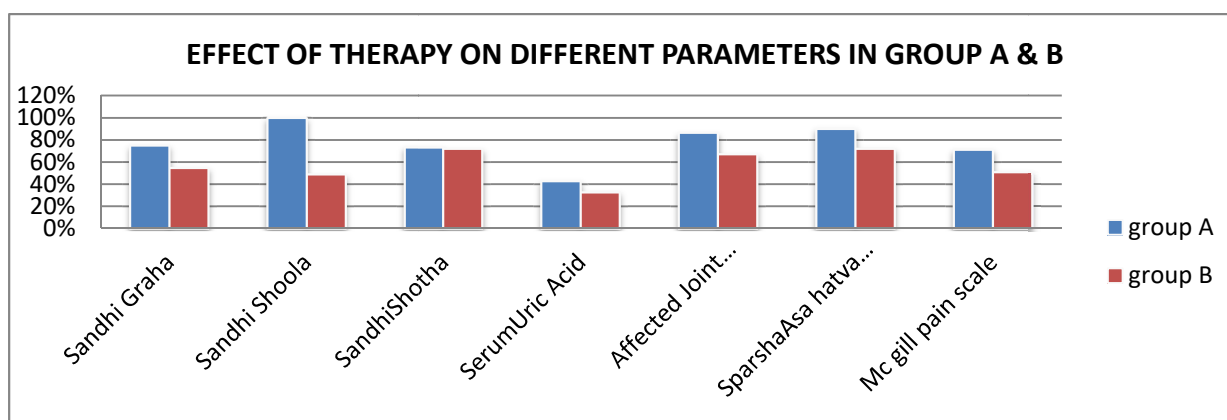
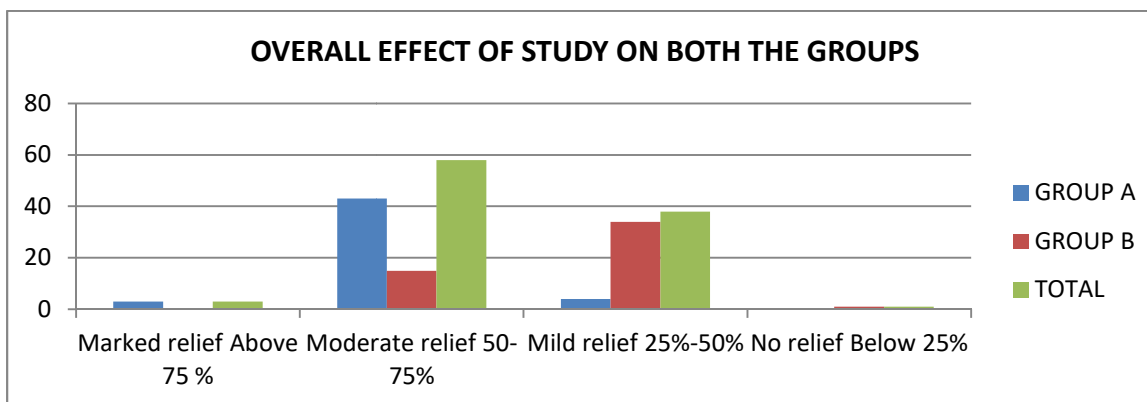


TABLE 15: Showing overall effect of study on both the groups.

Remarks	Group A	Group B	Total	Percentage
Marked relief Above 75 %	3	0	3	03%
Moderate relief 50-75%	43	15	58	58%
Mild relief 25%-50%	4	34	38	38%
No relief Below 25%	0	1	1	01%



DISCUSSION

The Subjects of Group A showed better results in all parameters compared to Group B. So *Basti* has a much contributory effect in *Vatarakta* / Gouty Arthritis even though *Virechana* also has a significant role in the disease *Vatarakta* / Gouty Arthritis.

Eventhough *Basti* being a *Shodhana Chikitsa* for *Vata Dosa* it will act on *Tridosha*, *Saptadhatus* and *Malas*. *Basti* is termed as *Ardha Chikitsa*. In *Vatarakta* almost all *Acharyas* explains about *Virechana* or *Raktamoksha* as the primary line of treatment as *rakta* being the *Avaraka* here and *Virechana* is the ideal treatment for *Rakta Dushti*. But if we consider the later stages of *Vatarakta* the predominant *Dosa* is *Vata* than *Rakta*. So *Basti* will be more effective in *Vatarakta* when it is in a chronic stage.

Here *Dasamoola Sidha Arthamatrika Basti* will act as both *Vedanasthapaka* and *Shodhahara* thus reduce the symptoms of *Vatarakta*.

CONCLUSION

- Present day life style, diet habits, social and environmental situations have given rise to the number of patients of Gouty Arthritis / *Vatarakta* in the society.
- Various *Vatahara* and *Rakta Prasadaka* remedies along with *Sodhana* Procedures is the main protocol of *Chikitsa*.
- Recurrence of *Vatarakta* is very common; so long term treatment is essential for cure of the disease.
- Anger, depression and psychological factors have influence on the Gouty Arthritis / *Vatarakta* condition. Mainly *Rakta*, *Asthi* and *Majjavaha Srotas* and *Vata* and *Pitta Dosha* are vitiated.
- In present study as per the clinical data, *Basti* and *Virechana* are definitely effective in the management of *Vatarakta*, but by assessing the percentage wise improvement *Basti* shows more effective than *Virechana*.

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