JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

"A COMPARATIVE STUDY OF THE EFFICACY OF VASAADI KWATH AND RAKTAMOKSHAN BY SIRAVEDHAN IN THE MANAGEMENT OF VATARAKTA W.S.R. TO GOUT"

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ABSTRACT

Vatarakta is a disease which is encountered in the population leading to sedentary life style. The factors which are responsible for *Vatarakta* is *Virudhahara* and *Mithya Vihara*.[1] These leads to the vitiation of *Vayu* and *Rakta* aggravated, *Vata* paves for vitiation of *Rakta* in turn leading to further aggravation of *Vata* thus evolves condition *Vatarakta*. In modern medical sciences the characteristics of *Vatarakta* resemble with those of Gout therefore it can be better correlated to Gouty arthritis. While talking about treatment of *Vatarakta*, *Acharya Sushruta* advised to perform *Raktamokshan* repeatedly[2] *Acharya Bhavprakash* advised to use *Vasaadi Kwath* to alleviate *Vatarakta* completely.[3] In this research the authors are proposed to analyze the efficacy of *Vasaadi Kwath* and *Raktamokshan* by *Siravedhan* for treatment of *Vatarakta*.

KEYWORD: *Vasaadi Kwath , Raktamokshan ,Vatarakta*, Gout

INTRODUCTION

Vatarakta is said to be caused by *Adhyashana*, *Virudhasana, Krodha*, *Divaswapna* and *Prajagarana*, *Misthansukhbhojinam*, *Achankramanshila* etc. Due to these *Nidana, Vata* and *Rakta* gets vitiated, aggravated *Vata* is blocked by vitiated *Rakta* which in turn leads to further aggravation of *Vata*. This aggravated *Vata* again causes vitiation of whole *Rakta*.[4]. These vitiated *Vata* along with deranged *Rakta* circulates very fast all over the body due to the *Sukshma* and *Drava Guna* of *Vata* and *Rakta* respectively and undergo *Dosha-Dushya Sammurchana* in *Sandhi Sthana* specially *Kara, Pada* and *Angula Sandhi*.[5]. The characteristics of *Vatarakta* resemble with those of Gout therefore it can better be correlated with Gouty arthritis in modern medical science. Gout is the disease of middle age group in which an abnormality of uric acid metabolism that causes Hyperuricemia and deposition of Monosodium urate crystal in joints causes Acute Gouty Arthritis, in soft tissue causing tophi and tenosynovitis in renal tubules causing urate stones and urate nephropathy. While talking about

treatment of *Vatarakt*a , *Acharya Sushruta* advised to perform *Raktamokshan* repeatedly. *Acharya Sushruta* considered *Rakta* as a fourth *Dosha*.[6]. Expulsion or removal of vitiated *Rakta* as well as other vitiated doshas from the body is called *Raktamokshan*. Amongst various methods of *Raktamokshana* like *Shring, Jaluka, Alabu* and *Siravedhana*, the *Siravedhana* is more effective and quicker in action. It relieves pain and redness immediately and considered as "*Ardhachikitsa"* in *Shalya Tantra. Acharya Bhavprakash* advised to use *Vaasadi Kwatha* to alleviate *Vatarakta* completely. The decoction prepared with *Vasa*, *Guduchi*, and *Amaltas* mixed with *Eranda Taila* should be given to alleviate generalized *Vatarakta.*

NEED OF THE STUDY

Due to the remittent and relapsing nature of *Vatarakta* (Gout), there is no permanent cure for the diseases, which is a challenge in present era. Moreover, it is a potential signal for unrecognized co-morbidities like metabolic syndrome, Diabetes mellitus, coronary artery diseases and hypertension. Although several drug regimens have been advised for its management in modern science like NSAIDS, Colchicine, Corticosteroids and Hypouricemic drugs, there use is associated with adverse effects and certain limitations.

Therefore, it is essential to find out some alternative therapeutics based on herbs *Vasaadi Kwath* and Para-surgical procedure i.e *Siravedhan* in the management of *Vatrarakta* (Gout).

RESEARCH QUESTION

Q. Is there any difference between efficacy of *Vasaadi Kwath* and efficacy of *Raktamokshan* by *Siravedhan* in the management of *Vatarakta* ?

HYPOTHESIS

Null Hypothesis (H0)

There is no difference between the efficacy of *Vasaadi Kwath* and *Raktmokshna* by *Siravedhan* in the management of *Vatarakta.*

Alternate Hypothesis (H1)

There is significant difference between the efficacy of *Vasaadi Kwath* and *Raktamokshna* by *Siravedhan* in the management of *Vatarakta*

AIMS & OBJECTIVE

- To evaluate the efficacy of *Vasaadi Kwath* in the management of *Vatarakta*
- To evaluate the efficacy of *Raktamokshan* by *Siravedhan* in the management of *Vatarakta*
- To compare the effect of *Vasaadi Kwath* and *Raktamokshan* by *Siravedhan* in the management of *Vatarakta*.

Clinical Source:

Outdoor patient department & Indoor patient department based patients of *Shalya Tantra* department of Shri Krishna Govt. Ayurvedic College and Hospital, Kurukshetra and patients diagnosed as *Vatarakta* will be

considered for the study after obtaining written informed consent.

Literary Source:

Ayurvedic Samhita and medical text books related to medicine, surgery and *Shalya Tantra*, articles and journals, research paper etc. will be screened for information regarding the subject.

Experimental Source:

It is a human clinical trial; no animal experimentation will be done.

MATERIAL AND METHODOLOGY

MATERIAL FOR *SIRAVEDHAN*

Pleasant atmosphere, scalp vein set, tourniquet, sterilized needles, gloves, kidney tray, bandaging material, gown, cap, mask, antiseptic solution.

MATERIAL OF VASAADI KWATH

SR NO.	Name	Botanical name	Family	Part used	Proportion
1.	***Vasa***	*Adhatoda vasica*	*Acanthaceae*	Leaves	1part
2.	***Guduchi***	*Tinospora cardifolia*	*Menispermaceace*	Stem	1part
3.	***Amaltas (chatturangul)***	*Cassia Fistula*	*Fabaceae*	*Phal majja*	1 part
4.	***Erand***	*Ricinus Communis*	*Euphorbiaceae*	Oil	½ to 1 *tola*

METHODOLOGY

In this study three groups will be taken in each group there will be 20 patients.

Group-A : *Vasaadi Kwath* 40ml twice a day orally in empty stomach

Group-B : *Raktamokshan* by *Siravedhan*

Group C : *Vasaadi Kwath* 40ml twice a day orally in empty stomach & *Raktamokshan* by *Siravedhan*

METHOD FOR *SIRAVEDHAN*-

***Purva Karma*:** In proper position, bloodletting will be done on the day which is neither very cold nor very hot, neither without sudation nor sudation done in excess and the procedure will be done after consuming *yavagu* (thin gruel).

Pradhan Karma:

The procedure will be done in sitting position. Bloodletting will be done with scalp vain set (18G) on 2 *angula* above *kshipramarma* said in classical text.

Blood Starting coming out through scalp vain set will be collected in Educated beaker / kidney tray.

Samayaksiravedh Lakshan-

When the blood stops by itself after adequate flow, then it will be considered as pure (unvitiated) and as a properly drained. Feeling of lightness of the body, mitigation of suffering, subsiding of severity of disease and cheerfulness of mind are the symptoms of proper blood-letting.

Paschata Karma:

- Advice rest to patient
- Limb elevation of respective site.
- Advice intake of *Laghu* and *Agni Sandipika Aahar*a.
- Watch for any complications like hematoma or cellulitis

INFORMED CONSENT –

The study will be explained clearly to the subjects in the language they understand and their signed, written, informed consent will be taken before starting the trial.

Sample Selection Criteria

a) Inclusion criteria

- Patients with clinical features of *Vatarakta*
- Patients of either sex
- Patients having age group of 25-65 years.
- Willingness of patients for study
- Patients having serum uric acid level >7.0 mg/dl in male and >6.0 mg/dl in females.

b) Exclusion criteria

- Age below 25 years & above 65 years

- Uncontrolled Diabetes mellitus, hypertension, COPD
- Known case of any type of Tuberculosis &HIV Patients
- HBsAg and HCV Positive patients
- Anemia (hemoglobin <7.00mg/dl), jaundice
- Pregnancy
- Leukemia
- Patients unwilling to participate in the trial
- Paralysis
- Known case of any blood disorder like sickle cell anemia, thrombocytopenia etc.

C) Criteria For Withdrawal –

- Patients reporting with any of the following

1. Patients willing to quit in between will be allowed to quit and will be replaced.
2. If any acute illness or complications develops during the trial, patient will be treated accordingly and will be excluded from the study.
3. Those patients who do not appear for two consecutive follow up.

STUDY DESIGN –

The study design is as follows:

Study type **:** Interventional
Sub-type : comparative open random study
Purpose : To give relief to patients
Timing : Prospective
Masking : Open trial
Sampling Method : Simple Random
End Point : Efficacy
Sample Size : 20 patients for each group

Statistical Calculations

Appropriate statistical methods will be used to analyze the data collected in the above observations and suitable conclusion drawn with the consultation of statistician. It is to compare the efficacy of *Vasaadi Kwath* and *Raktamokshan* by *Siravedhan* in the management of *Vatarakta* w.s.r. to Gout

Investigation

Routine haematological investigations like HB%, TLC, DLC, ESR, Blood grouping , BT, CT

Random Blood sugar

Serum uric acid

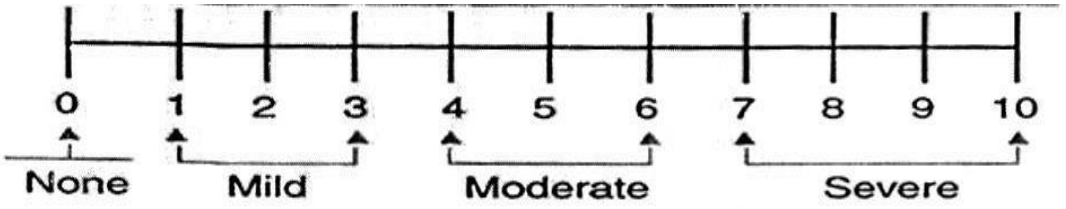
HIV, HBsAg, HCV

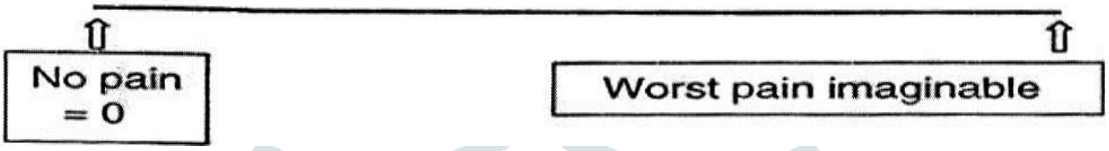
Urine routine

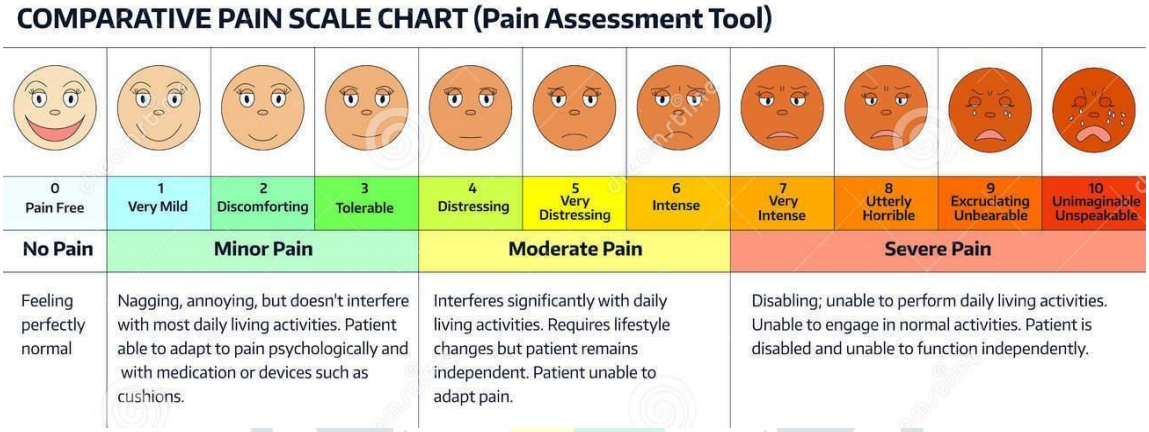
X RAY (If needed)

ASSESSMENT CRITERIA

Pain will be assessed by visual analogue scale:







SUBJECTIVE CRITERIA

***SANDHI SHOOLA* (Pain in joints)**

S.NO.	FEATURES	GRADES
1.	No Pain	0
2.	Mild pain bearable	1
3.	Moderate pain(Pain on movement and relieved on rest)	2
4.	Constant pain	3
5.	Severe pain with disturbing sleep	4

***SANDHI SHOTHA* (Swelling in Joints)**

S.NO.	FEATURES	GRADES
1.	No Swelling	**0**
2.	Mild swelling	**1**
3.	Moderate swelling	**2**
4.	Severe swelling	**3**
5.	Severe swelling with loss of movement	**4**

***SPARSH ASAHATAVAM* (Tenderness in Joints)**

S.NO.	FEATURES	GRADES
1.	No Tenderness	**0**
2.	Joint is tender	**1**
3.	Joint is tender and patient winces	**2**
4.	Patient winces and withdraw the affected joint	**3**
5.	Patient does not allow for touch	**4**

***RAGA* (Redness in joints)**

S.NO.	FEATURES	GRADES
1.	No redness	**0**
2.	Mild redness	**1**
3.	Moderate redness	**2**
4.	Severe redness	**3**
5.	Joint dusky red	**4**

***TWAK VAIVARNYA* (Discoloration of skin in joints)**

S.NO.	FEATURES	GRADES
1.	No discoloration of overlying skin	**0**
2.	Mild discoloration of overlying skin	**1**
3.	Moderate discoloration of overlying skin	**2**
4.	Severe discoloration of excoriation of skin	**3**
5.	Very severe discoloration of skin	**4**

STABDHTA (Stiffness in joints)

S.NO.	FEATURES	GRADES
1.	No stiffness	**0**
2.	Stiffness lasting for few minutes to 1 hour	**1**
3.	Stiffness lasting from 1 hour to 12 hours	**2**
4.	Stiffness lasting for more than 12 hour	**3**
5.	Stiffness lasting 24 hours	**4**

VIDAHA (Burning sensation in joints)

S.NO.	FEATURES	GRADES
1.	No burning sensation	**0**
2.	Mild burning sensation	**1**
3.	Moderate burning sensation	**2**
4.	Severe burning sensation	**3**
5.	Unbearable burning sensation	**4**

Objective Criteria

Serum Uric acid: The quantitative analysis of Serum Uric Acid will be done before & after the treatment.

S.NO.	Serum Uric Acid (Male)	Serum Uric Acid (Female)	GRADES
1.	7	6	**0**
2.	7-8	6-7	**1**
3.	8-9	7-8	**2**
4.	9-10	8-9	**3**
5.	>10	>9	**4**

FOLLOW UP:

GROUP -A:

Vasaadi Kwath will be advised to take orally 40 ml twice daily, from the 1st day of the treatment starts to 21 days. Follow up on 7th, 14th and 21th day, Patient will be instructed to follow pathya.

GROUP -B:

Raktamokshan by *Siravedhan* will be done on 1st, 7th ,14th and

Follow-up will be done on every 7thday.

GROUP -C:

*Raktamokshan*a by *Siravedhan* will be done on 1st, 7th ,14th and 21day. *VasadiKwath* will be advised to take orally 40 ml twice daily, from the 1st day of the treatment starts to 21 days.

Follow-up will be done on every 7thday.

DEPARTMENTAL COLLABORATION

This study will be done at the Department of Shalya Tantra of Shri Krishna Govt. Ayurvedic College and Hospital, Kurukshetra

Pathology and Biochemistry laboratory, Shri Krishna Govt. Ayurvedic College and Hospital, Kurukshetra.

Radiology unit, Shri Krishna Govt. Ayurvedic College and Hospital, Kurukshetra.

Pharmacy and Ras Shastra department of shri Krishna Govt. Ayurvedic college and hospital, Kurukshetra.

If required, cooperation of other departments of Shri Krishna Ayurvedic College and Hospital, Kurukshetra will be taken with due permission from concerned authority.

DECLARATION

Time Schedule: This study will be completed within stipulated time limit.

Informed written consent: Consent will be taken at the time of registration.

Ethics committee: Approval of IEC will be taken before starting the clinical trial.

CTRI Registration: The study will be registered in CTRI.

Case Sheet: Standard Case sheet will be prepared before starting the clinical trial.

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