

Randomized controlled clinical study to evaluate the efficacy of Vyadhishardul Guggul orally and *Dashang tail* locally in the management of *Amavata* with special reference to Rheumatoid arthritis in the age group 18-70 years.

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ABSTRACT

Introduction -The concept of *ama* is unique in Vedic science. It is used to refer to anything that exists in the state of incomplete transformation. Low digestive fire (*agnimadya*) plays a vital role in the formation of *ama*. In the classic, it is defined that *ama* is the main cause of manifestation of disease. Among them, *Amavata* is the most important *vyadhi* developed from *ama*.

Amavata is derived from the words *ama* and *vata*. It is a type of metabolic toxin that is an essential factor in the development of pathology. The two and *vata* aggravated simultaneously become localized in the joints of the trik (wrist) making the body rigid without moment this is called an *Amavata*.³

- **Aim and objective :-** To study the therapeutic effect of oral administration of Vyadhishardul

Guggul and local application of *Dashang tail*.

Method and Materials :- Total 60 patients of *Amavata* selected randomly which is then divided into two equal Groups i.e. 30 patients in each group. Giving intervention by *vyadhishardul guggul* orally and *Dashang tail am* locally for group A and *sihnad Guggul* orally and *Mahavishgarbh tailam* locally for group B for 45 days treatment and follow up taken for post therapy 45 days. Analysis of all patients were done and after that Result and conclusion were drawn.

Result and conclusion: -The effect of *Vyadhishardula guggul* with *Dashang tail* (Group A) is significant than *Simhanada guggul* with *Mahavishgarbh tail* (Group B) for subjective criteria – Jwara (Fever).

Vyadhishardula guggul with *Dashang tail* (Group A) is as effective as *Simhanada guggul* with *Mahavishgarbh*

tail (Group B) for subjective criteria – *Sandhishool* (*Vyavidhaiva vrushchika* – pain like scorpion bite), *Sandhishotha* (Swelling), *Sandhistabdhatta* (Stiffness), *Sparshashtva* (Tenderness), *Agnimandya* (Loss of appetite), *Koshtha baddhatta* (Constipation) and *Aruchi* (Anorexia).

Vyadhishardula guggul with *Dashang tail* (Group A) is as effective as *Simhanada guggul* with *Mahavishgarbh tail* (Group B) for objective criteria RA Factor, CRP and ESR.

KEYWORDS:- *vyadhishardul guggul*, *Dashang tail*, *sihnad guggul*, *Mahavishgarbh tail*, *Amavata*, Rheumatoid Arthritis.

INTRODUCTION :-

The concept of ama is unique in Vedic science. It is used to refer to anything that exists in the state of incomplete transformation. Low digestive fire (agnimadya) plays a vital role in the formation of ama. In the classic, it is defined that ama is the main cause of manifestation of disease. Among them, *Amavata* is the most important vyadhi developed from ama.

Amavata is derived from the words ama and vata. It is a type of metabolic toxin that is an essential factor in the development of pathology. The two c and vata aggravated simultaneously become localized in the joints of the trik (wrist) making the body rigid without moment this is called an *Amavata*.³

Madhavkar describe etiopathology of *Amavata*. The person with weak digestion (*mandagni*), if he passes a sedentary life (*nishachalasya*) or if he indulges in *viruddh ahara* and *vihar*, e.g. excessive exercise after heavy and fatty food the ama produced and vata get vitiated. This ama provoked by vat (*vayuna preritha*) in

the body, especially towards *sleshma* sthana. Resultants of cardinal symptoms of *Amavata*, painful swelling of the joints (*sarujam* sotha of hands feet and ankle, knee, hip spinal column, stiffness (*stambh*), fever (*jwar*), loss of appetite (*aruchi*), indigestion (*apka*), constipation (*vibandha*), gurgling (*antrakunjan*), etc. This impairs the day-to-day function of the person.

The clinical presentation of *aamvata* closely mimics the special variety of rheumatological disorders called rheumatoid arthritis. Today millions of adults in the world suffer from *Amavata*. The prevalence of RA is 1% of the population (range 0.3 to 2.1%)⁴, woman is affected 3 times more often than men, the ratio of males and females is 1:3⁴.

In the era of technology, science improves the quality of treatment, and it develops through continuous research. On *Amavata* many research has been carried out in various *Ayurvedic* institutes with the help of different *chikitsa* principles. As per the *chikitsa* sutra; First *langhana* and *Agnideepana* by *katu tikta* rasa are basic *chikitsa* principles mentioned in classics. For the management of root cause i.e. *Ama* and vitiated *vata*. *Langhana* is *adravyaropana chikitsa* which includes complete fasting or *laghu aahar sevana*, helps to *Ama* and *sama doshapachana*. And along with this; *katu-tikta dravyas* enhance *Agni* (*Jatharagni, dhatwagni*) and acts as *srotoshodhak, vatanulomaka*.

AIM AND OBJECTIVES

AIMS

- To study the therapeutic effect of oral administration of *Vyadhishardul Guggul* and local application of *Dashang tail*.

OBJECTIVES

- To study details of *Vyadhishardul Guggul* and *Dashang tail*.
- To evaluate the efficiency of *Vyadhishardul Guggul* orally and *Dashang tail* locally in the management of *Amavata*.
- To study to decrease in the positivity of the RA factor.
- To evaluate the effect of drugs on CRP levels.

OTHERS OBJECTIVES

- To study details about Rheumatoid arthritis and *Amavata*.
- To see the effect of *Vyadhishardul Guggul* and *Dashang tail* in signs and symptoms of *Amavata* i.e. 1) *sandhishool* 2) *sandhisotha* 3) *sandhistbdta* 4) *sprshashahatva* 5) *jwara* 6) *kosthbadhta* 7) *agnimandya* 8) *aruchi*.

MATERIAL AND METHODS-

Study Design: Prospective, randomized. Controlled, open labelled clinical study.

Place- PG Department of kayachikitsa Laxmanrao Kalasapurakar Ayurved College, Yavatamal, affiliated with D.M.M. Ayurved College, Yavatamal

Duration: 45 Days drug intervention and 45 days follow up.

METHOD OF SELECTION OF STUDY SUBJECTS

A. Inclusion Criteria

1. Patient between 18 to 70 years.
2. The patient who has classical symptoms of *Amavata* according to *Madhav Nidan*.
3. *Sandhishool* (*vrushchika danshvat vedana*) (Pain like Scorpion bite)

SHOWING GROUPING OF CASES

Group	Group A	Group B
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4. *Sandhishotha* (Swelling)
5. *Sparshasahtva* (Tenderness)
6. *Sandhistabhdhta* (Stiffness)
7. *jwara* (fever)
8. *Agnidaurbalya* (Loss of appetite)
9. *Aruchi* (Anorexia)
10. Either sex
11. RA Test Positive Pt.
12. C-RP positive pt.

B. Exclusion Criteria

1. Patient is not willing for a clinical trial.
2. Age less than 18 years and more than 70 years.
3. Osteoarthritis, Traumatic Arthritis, gouty Arthritis, Septic Arthritis, SLE (Systemic Lupus erythematosus) Pot's disease (Tubercular Arthritis)
4. Diabetes Mellitus and Insipidus, Hypertension, Renal failure, Liver cirrhosis Tuberculosis HIV and malignancy Ankylosing spondylitis, fixed joint deformity.
5. patients with extremely reduced joint space pregnant women and lactating mothers.

C. Withdrawal Criteria: -

1. Progressive worsening of disease and development of complications during trial.
2. Patients who do not complete the trial with follow-up.
3. non-co-operative behaviours of the patient
4. During the trial patient is not willing to continue the treatment.

Number of Patients	30	30
Treatment	<i>Vyadhishardul Guggul And Dashang tail</i>	<i>Sihnad guggul And Mahavishgarbh tail</i>
Dose	<i>Guggul -1gm BD Tailam – twice a day</i>	<i>Guggul –1gmBD Tailam - twice a day</i>
Kalpana	<i>Guggul Tailam</i>	<i>Guggul Tailam</i>
Anupana	<i>Warm water</i>	<i>Warm water</i>
Duration	<i>45 days – treatment given 45days – Follow Up</i>	<i>45 days – Treatment Given 45 days – Follow Up</i>
Time of administration	<i>Guggul - After meal Tailam - twice a day</i>	<i>Guggul – After meal Tailam –twice a day</i>
Route	<i>Guggul – orally Taila- locally</i>	<i>Guggul- orally Taila – locally</i>

Selection of drugs

Taking the symptoms and Samprati of Amavata into consideration “vyadhishardul guggul and Dashang tail were selected.

Vyadhishardul guggul contents-

Guggul, Haritaki Bibhitaki Amalaki, Sunthi, Marich Pippali, Musta, Vidang Devdaru, Guduch,i Chitrak, Trivarutta, Danti, Vacha, Suran, Mankand, Parad, Gandhak, Jaypal, Sharshap.

Dashang tail content :-

Til tail, Agnimanth, Bhrungraj, Shigru, Nirgundi, Shan, Erand, Vasa, Jati, Nimb, Arka, Erand jad, Purnava, Ashwagandha Shatavari, Gokshur, Shatpushpa, Saindhava, Sunthi, Marich, Pippali, Ela, Tejpatra, Jatamashi, Rashna, Dalchini

DATA COLLECTION TOOLS

Sandhi shoola (Joint pain)

Table no1. Assessment of pain will be done by visual analogues scale

Grade 0	No pain	Score 0
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Grade I	Uncomfortable (can do most activities with pain)	Score 1
Grade II	Dreadful (Unable to do an activity because of pain)	Score 2
Grade III	Unbearable distress (Wakes patient from sleep)	Score 3

Table no.2. Sandhishotha (Swelling of the joint)

Grade 0	No Swelling	Score 0
Grade I	Slight Swelling	Score 1
Grade II	Moderate swelling local temperature	Score 2
Grade III	Severe swelling local temperature with (Redness and tense skin)	Score 3

Table no. 3. Sandhistabdhata (Stiffness)

Grade 0	No stiffness	Score 0
Grade I	Morning stiffness <30 min	Score 1
Grade II	Morning stiffness<1 hr	Score 2
Grade III	Morning stiffness>1 hr	Score 3

Table no.4. Sparshasahatva (Tenderness)

Grade 0	No tenderness	Score 0
Grade I	Says tender and patient winces	Score 1
Grade II	Winces on pressure and withdraws.	Score 2
Grade III	Not allowed to be touched.	Score 3

Table no.5. Jwar (Fever)

Grade 0	No fever	Score 0
Grade 1	Occasional fever subsides by itself	Score 1
Grade 2	Daily once subsides by itself	Score 2
Grade 3	Daily once subsides by drug	Score 3
Grade 4	Continuous fever	Score 4

Table no.6. Aruchi (Anorexia)

Grade 0	Willing toward all bhojya padarth	Score 0
Grade 1	Unwilling for food but could take the meal	Score 1
Grade 2	Totally unwilling for meal	Score 2

Table no.7. Agnimandya (Loss of appetite)

Grade 0	Normal	Score 0
Grade 1	Up to 10% reduced Appetite	Score 1
Grade 3	Up to 50% reduced	Score 2
Grade 4	Complete loss of appetite	Score 3

Table no.8. Koshtha baddhata (constipation)

Grade 0	Absent	Score 0
Grade 1	Occasional or intermittent symptoms relived by laxative	Score 1
Grade 2	Persistent symptoms relived by regular use of laxative	Score 2
Grade 3	Constipation relived by manual evacuation	Score 3

Table no.9. Rheumatoid Factor

Grade 0	< 16 IU/ml	Score 0
Grade 1	16 – 64 IU/ml	Score 1

Grade 3	64 – 256 IU/ml	Score 2
Grade 4	256 – 512 IU/ml	Score 3
Grade 0	Titre < 0.6 IU/ml	Score 0
Grade 1	Titre 0.6 – 2.4 IU/ml	Score 1
Grade 3	Titre 2.4 – 9.6 IU/ml	Score 2
Grade 4	Titre 9.6 – 38.4 IU/ml	Score 3

Table no.10. CRP**Table no. 11. ESR**

Grade 0	20mm/hr	Score 0
Grade 1	20-40mm/hr	Score 1
Grade 2	41-60mm/hr	Score 2
Grade 3	60>mm/hr	Score 3

Observation and results**COMPARATIVE ANALYSIS:****Statistical Analysis:-**

- The null hypothesis, H₀:
The effect of the *Vyadhishardula guggul* with the *Dashang tail* (Group A) is not as significant as the *Simhanada guggul* with the *Mahavishgarbh tail* (Group B).
- The alternate hypothesis H₁:
The effect of *Vyadhishardula guggul* with *Dashang tail* (Group A) is more significant than *Simhanada guggul* with *Mahavishgarbh tail* (Group B).
- The alternate hypothesis H₂:
Vyadhishardula guggul with *Dashang tail* (Group A) is as effective as *Simhanada guggul*

with *Mahavishgarbh tail* (Group B).

All the values in the following tables are calculated by using the Mann – Whitney test for subjective criteria and the Unpaired t-test for the objective criteria. Let us see the statistical analysis for every symptom separately.

1.Sandhishool

The mean difference of Group A is less than mean difference of Group B and p-value is greater than the significance level $\alpha = 0.05$, we should reject the null hypothesis H_0 and accept the alternate hypothesis H_2 , i.e. *Vyadhishardula guggul* with *Dashang tail* (Group A) is as effective as *Simhanada guggul* with *Mahavishgarbh tail* (Group B) for Sandhishool (Vyaviddhaiva vrushchika – pain like scorpion bite)

2.sandhishotha

The mean difference of Group A is less than the mean difference of Group B and the p-value is greater than the significance level $\alpha = 0.05$, we should reject the null hypothesis H_0 and accept the alternate hypothesis H_2 , i.e. *Vyadhishardula guggul* with *Dashang tail* (Group A) is as effective as *Simhanada guggul* with *Mahavishgarbh tail* (Group B) for Sandhishotha (Swelling).

3.sandhistabdta

The mean difference of Group A is less than the mean difference of Group B and the p-value is greater than the significance level $\alpha = 0.05$, we should reject the null hypothesis H_0 and accept the alternate hypothesis H_2 , i.e. *Vyadhishardula guggul* with *Dashang tail* (Group A) is as effective as *Simhanada guggul* with *Mahavishgarbh*

tail (Group B) for Sandhistabdhta (Stiffness).

4.sparshasahatva

The mean difference of Group A is less than the mean difference of Group B and the p-value is greater than the significance level $\alpha = 0.05$, we should reject the null hypothesis H_0 and accept the alternate hypothesis H_2 , i.e. *Vyadhishardula guggul* with *Dashang tail* (Group A) is as effective as *Simhanada guggul* with *Mahavishgarbh tail* (Group B) for Sparshasahatva (Tenderness).

5.jwara

The mean difference of Group A is more than the mean difference of Group B and the p-value is lower than the significance level $\alpha = 0.05$, we should reject the null hypothesis H_0 and accept the alternate hypothesis H_a , i.e. The effect of *Vyadhishardula guggul* with *Dashang tail* (Group A) is significant than *Simhanada guggul* with *Mahavishgarbh tail* (Group B) for Jwara (Fever).

6 agnimandya

The mean difference of Group A is less than the mean difference of Group B and the p-value is greater than the significance level $\alpha = 0.05$, we should reject the null hypothesis H_0 and accept the alternate hypothesis H_2 , i.e. *Vyadhishardula guggul* with *Dashang tail* (Group A) is as effective as *Simhanada guggul* with *Mahavishgarbh tail* (Group B) for Agnimandya (Loss of appetite).

7 Kosthabadhta

The mean difference of Group A is less than the mean difference of Group B and the p-value is greater than the significance level $\alpha = 0.05$, we should reject the null hypothesis H_0 and accept the

alternate hypothesis H_2 , i.e. *Vyadhishardula guggul* with *Dashang tail* (Group A) is as effective as *Simhanada guggul* with *Mahavishgarbh tail* (Group B) for Koshtha baddhata (Constipation).

8 ARUCHI

The mean difference of Group A is less than the mean difference of Group B and the p-value is greater than the significance level $\alpha = 0.05$, we should reject the null hypothesis H_0 and accept the alternate hypothesis H_2 , i.e. *Vyadhishardula guggul* with *Dashang tail* (Group A) is as effective as *Simhanada guggul* with *Mahavishgarbh tail* (Group B) for Aruchi (Anorexia).

9.RA Factor

As the t value calculated is lower than the t tabulated value at $p=0.05$, where $df = 58$, we should reject the null hypothesis H_0 and accept the alternate hypothesis H_2 i.e. *Vyadhishardula guggul* with *Dashang tail* (Group A) as effective as *Simhanada guggul* with *Mahavishgarbh tail* (Group B) for RA Factor.

10 CRP

As the t value calculated is lower than the t tabulated value at $p=0.05$, where $df = 58$, we should reject the null hypothesis H_0 and accept the alternate hypothesis H_2 i.e. *Vyadhishardula guggul* with *Dashang tail* (Group A) as effective as *Simhanada guggul* with *Mahavishgarbh tail* (Group B) for CRP.

ESR

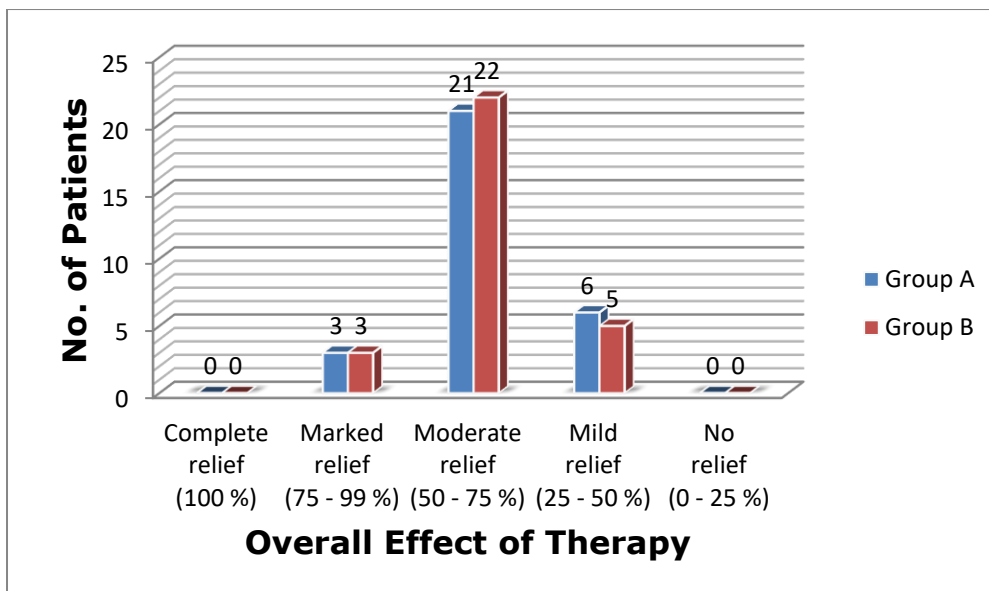
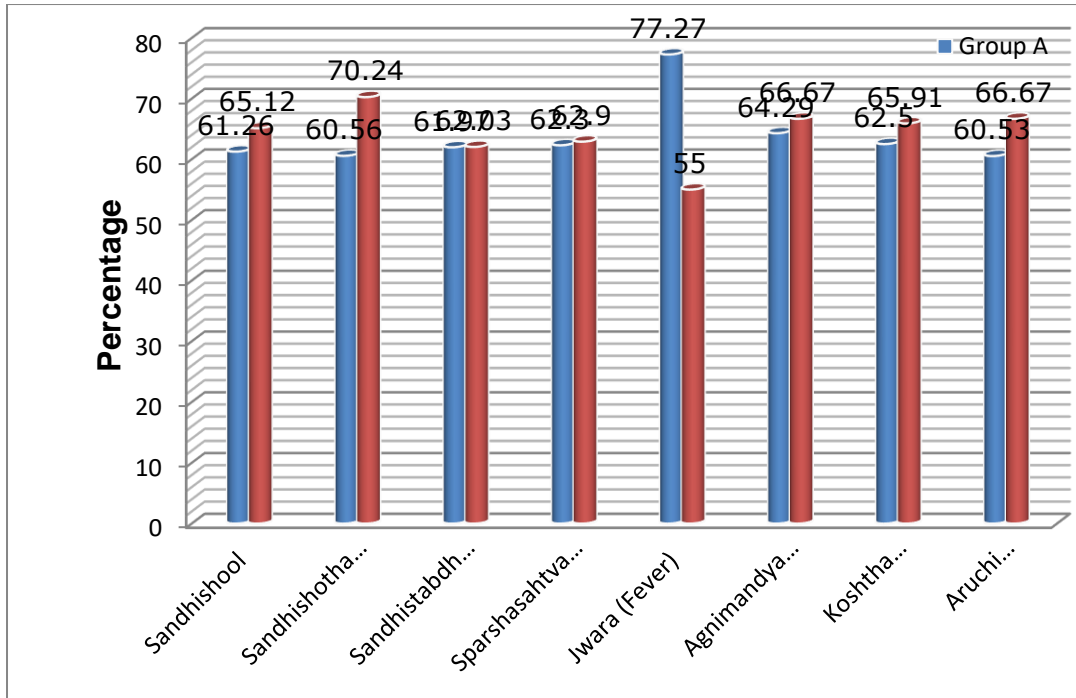
As the t value calculated is lower than the t tabulated value at $p=0.05$, where $df = 58$, we should reject the null hypothesis H_0 and accept the alternate hypothesis H_2 i.e. *Vyadhishardula guggul* with *Dashang tail* (Group A) as effective as *Simhanada guggul* with *Mahavishgarbh tail* (Group B) for ESR.

EFFECT OF THERAPY

according to percentile relief patients in Group A and Group B in subjective and objective criteria

Symptoms	Percentage Relief	
	Group A	Group B
Sandhishool (Vyaviddhaiva vrushchika – pain like scorpion bite)	61.26	65.12
Sandhishotha (Swelling)	60.56	70.24
Sandhistabdhata (Stiffness)	61.97	62.03
Sparshashtva (Tenderness)	62.30	62.90
Jwara (Fever)	77.27	55.00
Agnimandya (Loss of appetite)	64.29	66.67
Koshtha baddhata (Constipation)	62.50	65.91
Aruchi (Anorexia)	60.53	66.67

Graph according to percentile relief patients in Group A and Group B in subjective and objective criteria



Graph no. 12 Overall effect of therapy .

1. Discussion on statistical analysis

Statistical Analysis:

Comparison of Group A and Group B (By Mann Whitney's U Test for subjective criteria & Unpaired t Test for objective Criteria):

Both groups were compared and analyzed statistically by Mann-

Whitney's U test & Unpaired t-test.

Statistical Analysis:

The null hypothesis, H₀:

The effect of the *Vyadhishardula guggul* with the *Dashang tail* (Group A) is not as significant than the *Simhanada guggul* with the *Mahavishgarbh tail* (Group B).

The alternate hypothesis H₁:

The effect of *Vyadhishardula guggul* with *Dashang tail* (Group A) is significant than *Simhanada guggul* with *Mahavishgarbh tail* (Group B).

The alternate hypothesis H2:

Vyadhishardula guggul with *Dashang tail* (Group A) is as effective as *Simhanada guggul* with *Mahavishgarbh tail* (Group B).

Analysis

In the case of symptoms *Sandhishotha*, *Aruchi*, *Agnimandya*, *Koshthabadhata*, *Sandhishool*, *Sparshasahatva*, and *Sandhistabdhatata* the test showed the insignificant difference between mean differences of Group A and Group B. H₂ is accepted and H₀ & H₁ are rejected here because mean difference scores of Group A and Group B equally effective. It is hence concluded that *Vyadhishardul Guggul* and *Dashang tail* ' are insignificantly effective than *sihnad guggul* along with *Mahavishgarbh tail* in the management of *Amavata*.

B) Objective parameters (By unpaired T-test)

Both groups were compared and analyzed statistically by unpaired T-Test. In the case of parameters RA CRP and ESR the test has shown insignificant difference between mean differences of Group A and Group B. H₂ is accepted and H₁ & H₀ are rejected here. It is hence concluded that there is no significant difference between *Vyadhishardul Guggul* and

Dashang tailand sinhanad guggul along with *Mahavishgarbh tail* in the management of *Amavat* with special reference to Rheumatoid Arthritis to change CRP, RA and ESR.

Average Percentile relief

Average percentile relief 63.81 was in group A

Average percentile relief 64.41 was in group B

It is hence concluded that there is no significant difference between *Vyadhishardul Guggul* and *Dashang tail* a and *sihnad guggul* along with *Mahavishgarbh tail* in the management of *Amavat* with special reference to Rheumatoid Arthritis to change CRP, RA and ESR.

2. PROBABLE MODE OF ACTION OF DRUGS:

Vyadhishardul Guggul And Dashang tail

A) Effect on Dosha

- Both the trial drugs have *Katu*, *Tikta Rasa*, *Laghu*, *Ruksha Guna*, *Ushna Virya*, *Katu Vipaka* *Vedanasthapana*, *Deepana-Pachana*, *Rasayana* and *Medhya Karma* hence, it has *Vatakaphashamaka*, *Amapachaka*, *Srotoshodhaka* properties which helps in breaking the pathogenesis of *Amavata*.
- *Vyadhishardul Guggul* contains *Triphala*, *Trikatu*,

vidang, vacha, chitrak, danti, guduchi, suran, and nishottar. These drugs use *viryatmak* which has “Agnivridhikara property, they increase digestive power, which also digests Amarasa and reduces the excessive production of *Kapha* and also removes the obstruction of the *Srotas*. Because of *Ushna Virya*, it also alleviates vitiated *Vata*. *Katu Rasa* helps in *Agni Deepana Pachana Karma* of *Ushna Virya, Katu Rasa* and *Kaphahara Karma*.

- *Dashang tail* - contents *rashna, Ashwagandha agnimath, nirgundi* are *ushna viryatmak* and *katu tikta rasatmak* which works as *vat prokopak lakshna* in *Amavata*.

B) Effect on Dushya

- *Ras, Asthi majja* are *dushya of Amavata*.
- *Langhna* is mentioned for the treatment of *rasa dushti* as well as the treatment of *ama vata*.
- *Dashang tail* content –*til tail* which is *ushna viryatmak nirgundi Vasa nimb* are *katu tikta rasatmak* are helps treat the *ras dusti* in *Amavata*.

C) Effect on Strotasa

- *Vyadhishardul Guggul* and *Dashang tail* show a good effect on vitiated *vata* and *Rasavaha, mamsavaha* and *Swedavaha strotasa*.

- Content of *Vyadhishardul Guggul* like *guduchi* is *rashayana* as well as *jwarghna* in property with *katu tikta kashaya rasa*. help to reduce in *jwara lakshma* and *aruchi lakshna* in *Amavata*
- Most of the *Dravya* in *Dashang tail* and *Vyadhishardul Guggul* shows *Deepna, Panchana, Laghu, Ruksha, Ushna* and *Tikshna* properties, so they do *Aampachna*, hence they removed *sanga* from *strotasa* and do *Strotomukha Vishodhana*.

D) Effect on Vyadhi

- *Dravya* like *sunthi* and *amalaki* are *deepan dravya* which work on “*agnimadya*” which enhances the properties (*jatharagni* and, *dhawagni*). Most of the *dravya* are *agnivruddhikar*. Properties of this drug will help disrupt the *Samprapti Vighatana* of *Amavata*.
- *Vyadhishardul Guggul* content *vishadravyas* like *jaypal, Kajjali* that and *Dashang tail* content *arka patra swarasa*.
- Properties of *vishdravya* are *vyavayi & vikasi guna*.
- The *guna* of *visha dravya* causes fast absorption of the drug that causes *strotogamitva* of the drug &

causes *strotoshodhan* action & relieves the ama from *strotasas*.

- Most of the *visha dravya* are *jwarghna rashyana* in properties which is helpful in chronic conditions of diseases.

Conclusion:

The effect of *Vyadhishardula guggul* with *Dashang tail* (Group A) is more significant than *Simhanada guggul* with *Mahavishgarbh tail* (Group B) for subjective criteria – *Jwara* (Fever).

Vyadhishardula guggul with *Dashang tail* (Group A) is as effective as *Simhanada guggul* with *Mahavishgarbh tail* (Group B) for subjective criteria – *Sandhishool* (*Vyaviddhaiva vrushchika* – pain like scorpion bite), *Sandhishotha* (Swelling), *Sandhistabdhatata* (Stiffness), *Sparshasahtva* (Tenderness), *Agnimandya* (Loss of appetite), *Koshtha baddhata* (Constipation) and *Aruchi* (Anorexia).

Vyadhishardula guggul with *Dashang tail* (Group A) is as effective as *Simhanada guggul* with *Mahavishgarbh tail* (Group B) for objective criteria RA Factor, CRP and ESR.

References

1. Acharya Charak, Charak Samhita of Agnivesha elaborated by Charak and redacted by Drudhbal, Charak Chandrika Hindi commentary, Acharya Brahmanand Tripathi, Choukhambha Surabharati Prakashan, Varanasi, Reprint 2015, Sutrasthan, chapter no.30, Shlok no.30, Page no. 565.
2. Sushrut Samhita of Maharshi Sushruta, part 1, edited with Ayurved Tatwa Sandiika, Hindi commentary by Kaviraj Ambikadatta Shastri, Choukhambha Sanskrit Sansthan, Varanasi, Reprint 2018, Chikitsasthan, chapter no.15, Shlok no.3, Page 73.
3. Madhav Nidan by Madhavkar "Madhukash" tika edited by Yadunandan upadhyay Chaukhamba prakashan edition and reprint 2019 chapter 25 *Amavata* nidan adhyay sloka no 2 page no 509
4. A. DAVIDSON'S PRINCIPAL AND PRACTICE OF MEDICINE edited by Christopher Haslett, Edwin R Chilvers Nicholas A. Boon, Nicki R colledege 19th Edition New York Churchill Livingstone reprint 2002 Rheumatoid Arthritis prevalence rate page no.1002.
B. DAVIDSON'S PRINCIPAL AND PRACTICE OF MEDICINE edited by Christopher Haslett, Edwin R Chilvers Nicholas A. Boon, Nicki R colledege 19th Edition New York Churchill Livingstone reprint 2002 Rheumatoid Arthritis male-female ration page No.1002.
5. Acharya Charak, Charak Samhita of Agnivesha elaborated by Charak and redacted by Drudhbal, Vaidya Manorama Hindi commentary, Acharya vidyadhar Shukla and Ravi Dutt Tripathi, Choukhambha Sanskrit Prakashan, Delhi, Reprint 2019, vimansthan, chapter no 2 trividhkukshiya sloka 8-13 page no 563-564.
6. Acharya Charak, Charak Samhita of Agnivesha elaborated by Charak and redacted by Drudhbal, Vd.

- Manorama Hindi commentary, Acharya Vd. Dhar Shukla and R. D. Tripathi, Choukhambha Sanskritpratishtan, Delhi, Reprint 2014, Chikitsasthan, chapter no.15, Shlok no.75 Page no. 366.
7. Sushrut Samhita of Maharshi Sushruta, part 2, edited with Ayurved Tatwa Sandiika, Hindi commentary by Kaviraj Ambikadatta Shastri, Choukhambha Sanskrit Sansthan, Varanasi, Reprint 2018, chapter no. 56 (vichusika petishedha Adhyayam), Shlok no.10, page no.528
8. Astanghruday, Sarth Vagbhat by Dr. Ganesh Krushna Garde, Choukhambha Surbharati prakashan Reprint 2015, Sutrasthana, chapter no.13 (doshopakramniya Adhyayam), Shlok no.23,24,25,26,27, Page no 62.
9. Madhav nidanam by Shri Madhavkara with madhukosh Sanskrit commentary by Sudarshan Shastri edited by Yadunandan Upadhyay part 1. Choukhambha prakashan Varanasi reprint 2019. Chapter 25. *Amavata* nidan shloka 7,8,9,10-page no.51.

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