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## A Comparative study of Analgesic Effect (*Vednahara Karma*) of *Shigru Tvaka* and *Kadamba Tvaka Kvatha* in *Amavata* Vis-A-Vis Rheumatoid Arthritis

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### ABSTRACT

Disease *Amavata* can be correlated to Rheumatoid Arthritis (RA), which is one among the chronic destructive polyarthritis systemic disease. The exact etiology of the disease is still unknown, but Ama is believed to be acting as an antigen, which trigger the immunological reaction in genetically susceptible individuals. The disease *Amavata* is diagnosed on symptomatology, specific laboratory tests like RA test, CRP, Collagen profile etc. helpful for diagnosis and prognosis of Rheumatoid arthritis. The criteria laid down by American Rheumatism Association 1987 which comprises 7 criteria helps in the diagnosis of RA. *Kadamba* is described in *vedana hara mahakasaya* of *Caraka samhita* and *Shigru* as *Svayathuhara* at many places in *vrihatatrayi*. *Shigru tvaka* and *Kadamba tvaka kvatha* are effective in pain as well as majority of the symptoms of *Amavata*.

### KEYWORDS

*Amavata, Rheumatoid arthritis, Kadamba, Shigru*



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## INTRODUCTION

### Amavata

In *Ayurveda* even the smallest part of the disease is taken into consideration, whether it is about treatment or naming the disease. Here each disease shows its character and tells about itself merely by its name. The taken into consideration for naming the disease by and large are vitiated *Doshas*, *Dushyas*, *Vedana*, *Adhisthana*, *Avayava*, *Gati*, *Marga* and specific symptoms etc. Similarly, *Amavata* has been named keeping in view two predominant pathological factors viz., *Ama* and *Vata*. When *Ama* and *Vata* simultaneously get vitiated and enters the *Trika* and *Sandhi*, finally leading to *stabdhata* (stiffness) of the body, the condition is known as *Amavata*<sup>1</sup>.

### Rheumatoid Arthritis

Rheumatoid arthritis (RA) is a chronic, systemic, autoimmune, inflammatory

disorder in which an erosive, symmetric joint disorder maintains the centre stage accompanied by a variable, but at times prominent, degree of extra-articular involvement<sup>2</sup>. Rheumatoid arthritis is an autoimmune disease or illnesses which occur when the body tissues are attacked by its own immune system. Patients with these diseases have antibodies in their blood which target their own body tissues, where they can be associated with inflammation. Because it can affect multiple other organs of the body, rheumatoid arthritis is referred to as a systemic illness and is sometimes called rheumatoid disease<sup>3</sup>. On comprehensive review of *Ayurvedic* classics, two drugs were found for the treatment of RA:

*Shigru* is found in *Katu skandha* (Vi.8/143) and other references of *Shigru* are described below:

**Table 1** References of *Moringa oleifera* Lam

NAME	REFERENCES
SHIGRU	<b>CHARAK SAMHITA</b> <sup>4</sup> — Su.-2/2,2/22,3/7,4/27,13/914/30,23/18,27/170 Ni.-2/2 Vi.-7/17,3/266 Ci.-7/105,7/108,7/112,12/65,12/68,12/70,13/107,13/154,13/157,14/46,17/97,23/182,26/65,26/1 85,26/225,26/238,27/50,27/5228/166,28/174 Si.-3/60,8/8,9/7,11/23 <b>SUSRUTA SAMHITA</b> <sup>5</sup> —Su.-16/37,36/9,38/8,39/6,42/1845/115,46/221,46/237 Ci.4/31,9/10,9/53,16/35,18/23,18/45 Ka.-5/73,6/30,8/49,10/61, Utt.- 11/911/15,17/51,21/6,39/267,42/94,42/26,45/35,61/23 <b>ASTANGA HRIDAYA</b> <sup>6</sup> —Su.-6/106,14/2515/4,17/7,Sa.-1/88,2/56,Ci- 1/138,4/20,8/23,11/31,14/110,15/48,15/70,17/35,19/65,20/25 Utt.- 1/45,5/20,9/21,16/9,16/37,18/12,18/23,18/27,20/16,20/22,20/25,22/66,30/7,30/16,38/27
KRISHNAGANDHA	<b>CHARAK SAMHITA</b> <sup>4</sup> —Su.-1/114,3/3,25/49 Ci.-8/79,8/129,14/43,28/129 <b>SUSRUTA SAMHITA</b> <sup>5</sup> —Su.-46/432, Ci.-4/32,17/4,18/5 <b>ASTANGA HRIDAYA</b> <sup>6</sup> Ci.-5/68,8/17
AKSHIV	<b>CHARAK SAMHITA</b> <sup>4</sup> —Su.4/15, Vi.-3/266
SOBHNANJAN	<b>CHARAK SAMHITA</b> <sup>4</sup> —Su.-4/22,14/31 Vi.-8/151,3/266 Ci.7/123,17/98,26/66,27/54 <b>SUSRUTA SAMHITA</b> <sup>5</sup> — Ci.-7/24, Utt. -11/8,45/19 <b>ASTANGA HRIDAYA</b> <sup>6</sup> Ci.-3/136,15/87,19/86



Kadmba is found in *Kashaya skandha* (Vi.8/144) and other references of *Kadmba* are given below:

**Table 2** References of *Anthocephalus indicus* Miq. (Rubiaceae)

NAME	REFERENCES
KADAMBA	<b>CHARAK SAMHITA</b> <sup>4</sup> Su.4/20,4/47,27/114,Ci.3/258,6/27,18/154,25/87,25/9529/9 Ka.-1/14 Si.-6/66
	<b>SUSRUTA SAMHITA</b> <sup>5-</sup> Su.-6/32,38/14,38/48 Ci-7/18,25/17 Ka.-8/10Utt.-51/40
	<b>ASTANGA HRIDAYA</b> <sup>6</sup> Su.-10/32,15/41,29/72 Ci.-3/154,11/29,19/79Ka.-1/7Utt.-3/46,27/14
NEEPA	<b>CHARAK SAMHITA</b> <sup>4</sup> Su.-4/23,27/445, Vi.7/21,Si.10/34
	<b>SUSRUTA SAMHITA</b> <sup>5-</sup> Su.-46/139,46/158 Ci-4/32
	<b>ASTANGA HRIDAYA</b> <sup>6</sup> Ci.-20/3 Ka.-1/7 Utt.34/2

Presently, the Steroid and Non-steroidal anti-inflammatory drugs (NSAIDs) are the mainstay in this disease, however they have serious adverse effects and have limitations for a long term therapy. The immunosuppressive drugs are reserved for selected cases, while the disease modifying drugs like gold-salts are costly and have low benefit risk ratio. Hence, there is a need for drugs having good efficacy with low toxic profile in this debilitating disorder. A number of indigenous drugs have been claimed to be effective in the treatment of Rheumatoid arthritis but their claims have not been largely substantiated in well controlled clinical trials. *Kabamb* is mentioned in *Vedana har mahakasaya* of *Charak*. Many research works have been conducted already in the search of effective management of *Amavata* but safe and effective treatment is still not available for management of *Amavata*. Here we have tried to compare both *Sigru tvaka* and *Kadamba tvaka kvatha* to see the effect of both drugs on the disease *Amavata*.

### Plan of Study

In the present study 60 patients were registered, all the registered patients were randomly divided into 3 groups having 20 patients in each group. Out of 60 registered patients, 5 from Group A, 4 from Group B and 3 from Group C (Total = 12) discontinued the treatment in between the study. Treatment was then given for three months to the remaining 48 patients. The diagnosis was done on the basis of sign & symptoms described in both *Ayurvedic* and modern texts.

**Group A:** 15 patients from this group were given 40ml of *Shigru tvaka* and *Kadamba tvaka kvatha* twice daily for 3 months.

**Group B:** 16 patients of this group were given the Indomethacin 75 mg twice daily for 3 months.

**Group C:** 17 patients of this group were given combined treatment of group A &B. For the assessment of results, *Ayurvedic* parameters as well as parameters laid down by American Rheumatism Association (1987) were followed. The



results obtained in this study were as follows:

#### **General description of the patients-**

**Age and Sex-** Out of 60 patients taken for our study 22 were male and 38 were female. Incidence of disease is found higher in females than in males. Though rheumatoid arthritis affects all age groups, the maximum numbers of patient registered were in between 51-70 years of age group (28.3%) followed by 41- 50 years of age group (26.7%).

**Occupation-** Majority of patient in the present study were housewives (35%) followed by gov. job (28.3%), farmer (16.7%), student (16.7%) and business (3.3%). Through this pattern of occupational incidence cannot be realistically generalized but notably high incidence of housewives.

**Economic status-** Majority of the patients i.e. 66.7% belonged to middle economic status 18.3% of the patients belonged to lower class

**Religion-** In the present study among 60 patient majority of the patients 47 (78.3%) were Hindu and 13 (21.7%) Muslims.

**Habitat-** In the present study among 60 patients 37 (61.7%) patient belong of rural area and 23 (38.3%) patient are of urban area.

#### **Overall Improvement in Percentage-**

The percentage of patients with total improvement (no symptoms remaining) in the symptoms of *Amavata* after the three months therapy in Group A , B & C is described in the table below:

**Table 3** Overall Improvement

S. No.	Symptoms	Group A	Group B	Group C
1.	Pain (Vedna)	46.7	37.5	47
2.	Angamarda	26.7	18.7	64.7
3.	Aruci	93.3	68.7	88.2
4.	Trishna	93.3	93.7	100
5.	Alasya	80	43.7	94.1
6.	Gouravam	53.3	25	76.5
7.	Jwara	100	93.7	100
8.	Apaka	93.3	68.8	82.3
9.	Suntangnam	33.3	6.3	58.8

#### **RESULTS AND DISCUSSION**

On the basis of observation and result the maximum no. of patient get relief in pain (Vedna) in group C (47%) as compare to group A (46.7%) and group B (37.5%). So group A and B are showed the same effect. So in case of pain management in *Amavata*, *Shigru tvaka* and *Kadamba tvaka kvatha* is a better regimen for the treatment. After assessment of all variable in all three group i.e. A, B and C, we found that in case of *Vedna*, *Angamarda*, *Trisna Alasya*, *Gaurav*,and *Suntangnam* , group C showed profound effect that is mention in above table no.3, which is mainly because of combined effect of *Shigru* and *Kadamb twak kvath Shigru tvaka* and *Kadamba tvaka kvatha* with Indomethacin. While in case of *aruci*, *jwara* and *apaka* group A showed better



result i.e. only by *Shigru tvaka* and *Kadamba tvaka kvatha* So that conclude that combined effect of both drug can give better result rather than single used. Relief of pain is maximum in group C (47) fallowed by A(46.7) and least in group B(37.5). So the trial drug is much helpful to subside the pain in *Amavata* patient. The severity of *Angmarda* (Bodyache), *Aruchi* (Loss of taste), *Trishna* (Thirst), *Alasya* (Lack of enthusiasm), *Gaurav* (Heaviness), *Jwara* (Fever), *Apaka* (Indigestion), *Suntanganam* (Swelling of the body), pain, was significantly reduced from initial to successive fallow-up. The level of significance was different for the different symptoms. In the present study the group C 47% got relief from pain while in group A (46.7%) and in group B (37.5%). Out of 60 patient 75% were seronegative in dsDNA, seronegative (81.7%) in ANA, seronegative (91.7%) in ANF and seronegative(83.3) in CRP. Female were more seropositive in comparison to male. On evaluation of the knowledge of the literature and experience of the present work it may be concluded, that disease Amavata can be correlated to Rheumatoid Arthritis, which is one among the chronic destructive polyarthritic systemic disease. The exact etiology of the disease is still unknown, which trigger the immunological reaction in genetically

susceptible individuals. The disease Amavata is diagnosed on symptomatology-specific laboratory tests like RA test, CRP, Collagen profile etc helpful for diagnosis and prognosis of RA. The criteria laid down by American Rheumatism Association 1987 which comprises 7 criteria helps in the diagnosis of RA<sup>9</sup>. Some of the symptoms of pravridha Amavata and its upadravas can be considered as the extra-articular manifestations of Rheumatoid Arthritis. Kadamba is described in vedana hara Mahakashaya of Caraka samhita and Shigru as Svayathuhara at many places in vrihatatrayi. We know that Rheumatoid arthritis is an inflammatory disorder with certain symptom like pain, tenderness & swelling of multiple joint.

## CONCLUSION

In the present study we have seen that maximum no. of patient got relief in pain in group C (47%) as compare to group A (46.7%) and group B(37.5%). Now we can asses that both seems to be same in group A and C, So in case of pain management in Amavata, Shigru and Kadamb twak kvath is a better regime for treatment. After assessment of all variable in all three group i.e. A, B and C, we found that in case of vedana, angamarda, trishna,



Alasya, gaurav, and Shuntanganam, group C showed profound effect, which is mainly because of combined effect of Shigru and Kadamb tvak kvath with Indomethacin. So with all justification we can say that, there is improvement in pain as well as signs and symptoms of Amavata. Hence, the Ayurvedic drug i.e Shigru tvaka and Kadamba tvaka kvatha can be used in patients of Amavata with good hope and wish that the present study would prove a boon for humanity.



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