

Effect of *Virechana Karma*, *Murva Dahaya Kashaya*, *Bimtambaru Sweda* and *Bimtambaru Patra Lepa* on *Amavata* (Rheumatoid Arthritis) – A Case Study

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ABSTRACT:

Amavata is a disease caused by vitiation of *Vata* and *Kapha Dosha*. *Amavata* can be correlated with rheumatoid arthritis with pain, joint swelling, and stiffness in small joints of the hands, feet and wrists being present. *Virechana Karma* is prescribed in treatment of *Amavata*. *Murva Dahaya Kashaya*, *Bimtambaru Sweda* and *Bimtambaru Patra Lepa* are prescribed in treatment of *Amavata* in Sri Lanka. No known scientific study has been carried out to evaluate the effect of these treatments. A 53-year old woman suffering from *Amavata* for 10 years was treated for 17 days with *Virechana Karma* using *Eranda Taila* followed by oral administration of *Murva Dahaya Kashaya* and external application of *Bimtambaru Sweda* and *Bimtambaru Patra Lepa*. Severity of the symptoms were recorded using a specially prepared grading scale. After *Virechana Karma*, anorexia was relieved by 100%, discomfort at flexion of inter phalangeal joints by 33.3% and body ache by 50%. None of the other symptoms were reduced. After completion of entire treatment, body ache, fever, pain, discomfort at flexion of inter phalangeal joints and fatigue were completely relived. General functional capacity enhanced and haematological parameters (Erythrocyte Sedimentation Rate and C-Reactive protein) reached normal levels. According to American College of Rheumatology 2010 Criteria, Criterion Score of this patient was seven before treatment and three after completion of entire treatment. It is concluded that selected treatment regimen is a potentially beneficial therapy for *Amavata* (rheumatoid arthritis).

KEYWORDS: *Amavata*, *Bimtambaru*, *Ipomoea pes-caprae*, *Murva Dahaya Kashaya*, Rheumatoid arthritis, *Virechana Karma*.

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INTRODUCTION:

Amavata is a disease caused by vitiation of *Vata* and *Kapha Dosha* and its clinical features are *Jwara* (fever), *Angamarda* (body ache), *Aruchi* (anorexia), *Ajeerna*

(indigestion), *Shota* (swelling), *Sharira Gaurava* (heaviness of the body) and *Alasya* (laziness).^[1] *Amavata* can be correlated with rheumatoid arthritis (RA). RA is the commonest form of inflammatory arthritis

with typical presentation of pain, joint swelling and stiffness affecting the small joints of the hands, feet and wrists. Large joint involvement, systemic symptoms like anaemia, muscle wasting, scleritis, pericarditis and extra articular features like anorexia, weight loss, fatigue may also occur.^[2]

Authentic Ayurveda books mention that *Langhana* (fasting), *Swedana* (fomentation), *Deepana* (digestive stimulant) *Virechana Karma* (purgation) and *Vasti Karma* (enema) as therapeutic measures which can be applied in treatment of *Amavata*.^[3] *Virechana Karma* (purgation) using *Eranda Taila* (castor oil) and *Murva Dahaya Kashaya* is widely practiced in treatment of *Amavata* in Sri Lanka with effective results. Ayurveda Aushadha Samgraha mentions *Bimtambaruadi Sweda*^[4] and *Bimtambaru Patra Lepa*^[5] prepared with *Ipomoea pes-caprae* (*Bimtambaru*) for treatment of *Amavata* (Figure1). So far, no known scientific study has been carried out to evaluate the effects of these treatments. Therefore, present study was carried out to evaluate the effects of these treatments.

CASE STUDY:

A 53-year old women who attended the Outdoor patients' department (OPD) at Ayurveda Teaching Hospital, Borella, Sri Lanka, suffering from *Amavata* (rheumatoid arthritis) was selected. She complained of discomfort at flexion of inter phalangeal joints and *Shoola* (pain in inter phalangeal joints of both hands) for 10 years. Further, she complained of *Angamarda* (body ache), *Aruchi* (loss of appetite) and fatigue. The selected patient was thoroughly examined and investigations such as Erythrocyte Sedimentation Rate (ESR), C-reactive protein (CRP) and Rheumatoid factor (RF) were carried out. Severity of the clinical features were recorded using a specially prepared grading scale using in previously

published research papers.^[6, 7] Therapeutic effects were evaluated through the symptomatic relief.

Procedure of treatment: The selected patient was treated for 17 days as given in Table 1. On Day 1, *Virechana Karma* was performed using *Eranda Taila* (castor oil) and. *Samsarjana Krama* was followed for three consequent days. From Day 4 to Day 17 the patient was treated with oral administration of 120ml of *Murva Dahaya Kashaya* twice a day. *Sweda Karma* (fomentation) was conducted for a period of 15 minutes, using medicated boluses prepared with leaves of *Bimtambaru* (*Ipomoea pes-caprae*). After *Sweda Karma*, *Bimtambaru Patra Lepa* was applied externally on affected joints once a day in the morning around 10 a.m. and was rinsed off after 4 hours of application.

Preparation of *Murva Dahaya Kashaya*

6gm each of tuberous of *Cyperus rotundus* (Linn.) (Sinhala name: *Kalnaduru*), dried rhizomes of *Zingiber officinale* (Rose.) (Sinhala name: *Inguru*), dried seeds of *Coriandrum sativum* (Linn.) (Sinhala name: *Kottamalli*), stems of *Tinospora cordifolia* (Wild) (Sinhala name: *Rasakinda*), roots of *Trichosanthes cucumerina* (Linn.) (Sinhala name: *Dummella*), *Solanum surattense* (Burm. f) (Sinhala name: *Elabatu*), *Marsdenia tenacissima* (Moon.) (Sinhala name: *Murva*), *Aegle marmelous*(Corr.)) (Sinhala name: *Beli*) and *Picrorhiza kuttoa* (Royle) (Sinhala name: *Katukarosana*) and entire plant of *Plectranthus zeylanicus* (Benth) (Sinhala name: *Iriweriya*) were taken, mixed with 1920ml of water and boiled down to 240ml.^[8]

Preparation of *Bimtambaru Patra Lepa*

250g fresh leaves of *Ipomoea pes-caprae* (Sinhala name: *Bimtambaru*) was ground and applied on affected joints.

Preparation of Bimtambaru Sweda

400g of fresh leaves of *Ipomoea pes-caprae* (Sinhala name: *Bimtambaru*) was pounded and boluses were prepared by wrapping it in a piece of cotton cloth. The boluses were heated keeping in a steamer and fomentation was carried out using these boluses.

Results:

After *Virechana Karma*, it was observed that *Aruchi* (anorexia) was relieved by 100%, discomfort at flexion of inter phalangeal joints was relieved by 33.3% and *Angamarda* (body ache) was relieved by 50% but none of the other symptoms were reduced. After completion of entire treatment, it was observed that *Angamarda*

(body ache), *Jwara* (fever), *Shoola* (pain), discomfort at flexion of inter phalangeal joints and fatigue were completely relieved as given in Table 2. General functional capacity enhanced and relieved by 100%.

After completion of entire treatment, haematological parameters such as ESR (Erythrocyte Sedimentation Rate) and CRP (C-reactive protein) reached normal levels as given in Table 3.

According to European League Against Rheumatism / American College of Rheumatology 2010 Criteria, criterion score of this patient was seven (07) before treatment and criterion score was three (03) after completion of entire treatment levels as given in Table 4.

Table 1: Procedure of treatment

Day	Treatment
Day 1	<i>Virechana Karma</i> using <i>Eranda Taila</i> (castor oil)
Day 2-3	<i>Samsarjana Krama</i>
Day 4 -Day 17	120ml of <i>Murva Dahaya Kashaya</i> twice a day orally
	<i>Sweda Karma</i> with medicated boluses of leaves of <i>Bimtambaru</i>
	External application of <i>Bimtambaru Patra Lepa</i> (after <i>Sweda Karma</i>)

Table 2. Reduction of clinical symptoms:

Symptoms	Before treatment	After <i>Virechana Karma</i>		At the end of the whole treatment	
	Grade	Grade	Percentage of relief	Grade	Percentage of relief
<i>Angamarda</i> (body ache)	Grade 2	Grade 1	50%	Grade 0	100%
<i>Jwara</i> (fever)	Grade 1	Grade 1	0%	Grade 0	100%
<i>Aruchi</i> (loss of appetite)	Grade 1	Grade 0	100%	Grade 0	100%
<i>Shoola</i> (pain)	Grade 4	Grade 4	0%	Grade 0	100%
Discomfort at flexion of inter phalangeal joints	Grade 3	Grade 2	33.3%	Grade 0	100%
Fatigue	Grade 1	Grade 1	0%	Grade 0	100%
General functional capacity	Grade 1	Grade 1	0%	Grade 0	100%
Visual analog score	Grade 3	Grade 3	0%	Grade 0	100%

Table 3. Changes in Haematological parameters:

Investigation	Before treatment		After completion of entire treatment	
	ESR (Erythrocyte Sedimentation Rate)	26mm at 1 st hr	High	20mm at 1hr
C-Reactive protein	4.4mg/L	High	2.9mg/L	Normal
Rheumatoid Factor	<8IU/mL	Negative	<8IU/mL	Negative

Table 4. Criterian Score before and after treatment according to European League Against Rheumatism / American College of Rheumatology 2010 Criteria

Criteria for diagnosis of rheumatoid arthritis	Criterion Score before treatment	Criterion Score After treatment
Joints affected 4-10 small joints	5	2
Serology Negative RF and ACPA	0	0
Duration of symptoms >6wks	1	1
Acute phase reactants Abnormal CRP and ESR	1	0
Total score	7	3


Figure 1: *Ipomoea pes-caprae* (Linn.) (*Bimtambaru*)
DISCUSSION:
Effect of *Virechana Karma* using *Eranda Taila* on *Amavata*:

Amavata is a disease caused by vitiation of *Vata* and *Kapha*. [1] *Virechana Karma* (purgation) is described as one of the therapeutic measures in treatment of *Amavata* in authentic Ayurveda texts. [3] *Virechana Karma* eliminates vitiated *Dosha* accumulated in the body. Hence *Virechana*

Karma (purgation) is effective in treatment of *Amavata*. Ayurveda pharmacological properties of *Eranda Taila* are *Katu Rasa*, *Guru Guna* and *Ushna Veerya*. [9] Due to these properties it pacifies vitiated *Vata* and *Kapha Dosha*. Therefore, conduction of *Virechana Karma* using *Eranda Taila* (castor oil) is beneficial in treatment of *Amavata*.

Effect of *Bintambaru Patra Sweda* and *Bintambaru Patra Lepa* on *Amavata*:

Sweda Karma is described as a therapeutic measure in treatment of *Amavata*.^[3] *Sweda Karma* (fomentation), pacifies vitiated *Vata Dosha* as it has the properties of *Ushnatha*, *Tikshnatha*, *Stiratha* and *Snighdhata Guna*.^[10] Due to *Ushnatha*, *Tikshnatha* and *Rukshata Guna* it also pacifies vitiated *Kapha Dosha*. *Bintambaru* (*Ipomoea pes-caprae*) possess the *Ayurveda* pharmacodynamic properties such as *Katu* and *Kashaya Rasa*, *Guru* and *Sheeta Guna*, *Sheeta virya* and *Katu Vipaka*.^[11] Therefore, it pacifies vitiated *Tridosha*. Therefore, *Bintambaru Patra Sweda* and *Patra Lepa* are beneficial in treatment of *Amavata*.

Effect of *Murva Dahaya Kashaya* on *Amavata*

Ingredients of *Murva Dahaya Kashaya* possess *Ayurveda* pharmacological properties such as *Madhura* and *Tikta Rasa*, *Snighdha* and *Laghu Guna*, both *Ushna* and *Sheeta Veerya* and *Madhura Vipaka*. Because of these properties *Murva Dahaya Kashaya* pacifies vitiated *Tridosha*. Hence, *Murva Dahaya Kashaya* is beneficial in management of *Amavata*.^[12]

Effect of medicines used in this research based on scientifically proven bioactivities of relevant ingredients

Anti-inflammatory, Analgesic, immunomodulatory and antioxidant activities of *Ricinus communis* (*Eranda*)^[13,14] *Ipomoea pes-caprae* (*Bintambaru*)^[15,16] and ingredients of *Murva Dahaya Kashaya* ^[17 - 26] are scientifically proven. Therefore, it helps to reduce pain, inflammation occurs in *Amavata* (rheumatoid arthritis). Also these medicines are effective in managing autoimmune disorders including rheumatoid arthritis due to their immunomodulatory action. It helps to

remove free radicals and promote health due to antioxidant activity of them.

CONCLUSION:

Based on this single case study, it can be concluded that conduction of *Virechana Karma* (purgation) using *Eranda Taila* (castor oil) followed by oral administration of *Murva Dahaya Kashaya* and external application of *Bintambaru Sweda* (fomentation) and *Bintambaru Patra Lepa* (paste) are beneficial in treatment of *Amavata* (rheumatoid arthritis).

LIMITATION OF STUDY:

This is a single case study and this research should be carried out with larger sample which will make results more acceptable

PATIENT CONSENT:

The patient gave the informed consent for reporting of the case study in the journal.

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