

## ROLE OF VAITARANA BASTI IN THE MANAGEMENT OF AMAVATA W.S.R. TO RHEUMATOID ARTHRITIS – A REVIEW ARTICLE

Dewangan Neetu<sup>1</sup>, Shrivasa Sandeep<sup>1</sup>, Khichariya S.D.<sup>2</sup>

<sup>1</sup>PG Scholar, <sup>2</sup>Assistant Professor

Department of Kayachikitsa, Shri NPA Govt. Ayurved College Raipur, Chattisgarh, India

Email: [neetudewangan12@gmail.com](mailto:neetudewangan12@gmail.com)

### ABSTRACT

*Amavata* is one of the common and most crippling joint disorders. It is a chronic, degenerative disease of the connective tissue mainly involving the joints. *Ama* associated with aggravated *Vata* plays dominant role in the pathogenesis of *Amavata*. The clinical features of *Amavata* such as pain, swelling and stiffness of joints, fever, and general debility are the features that closely mimics the rheumatological disorder called as rheumatoid arthritis. The classical treatment of *Amavata* is *Langhana*, *Swedana*, *Deepana*, *Amapachana*, *Shodhana*, *Shamana*, *Basti Chikitsa* etc. *Acharya Chakradatta* had indicated *Vaitarana Basti* in *Amavata*. It is used in *Amavata* because it brings *Doshas* from *Shakha* to *Koshtha* and removes them out of the body via *Gudmarga* and give relief. *Basti dravyas* possess the pharmacodynamic properties such as *Laghu –Tikshna Guna*, *Katu-Tikta Rasa*, *Ushna Veerya* etc. are against the *Guru*, *Pichchhila*, *Sheeta Guna* of *Ama*. Thus *Vaitarana Basti* proves an effective treatment in *Amavata*.

**Keywords:** *Amavata*, rheumatoid arthritis, *Vaitarana Basti*.

### INTRODUCTION

*Amavata* is first described as separate disease in *Madhava Nidana*, where it is mentioned that *Mandagni* plays an important role in the manifestation of the disease.<sup>1</sup> *Amavata* is mainly due to derangement of *Agni*, resulting in the formation of *Ama*.<sup>2</sup> Aggravated *Vata* and *Ama* are the core factors in the pathogenesis of *Amavata*. In its *Pravruddhavastha*, all joints get affected. Pain related to *Amavata* is so dreadful that it is compared with pain of scorpion bite.<sup>3</sup> Constant use of incompatible food articles and strenuous exercise immediately after consumption of fatty food lead to indigestion.

This results in the formation of *Ama* which gets circulated throughout body by *Vyana Vayu*. This then accumulates at *Shleshma Sthana* i.e. in the joints leading to manifestation of symptoms of disease like *Agnimandya*, *Aruchi*, *Trishna*, *Alasya*, *Saandhishoola*, *Sandhishoth*. The principal treatment of *Amavata* is *Langhana*, *Swedana*, *Virechana*, *Basti* and drugs having *Tikta-Katu rasa*, *Deepana* properties.<sup>4</sup>

RA is a chronic immune-inflammatory systemic disease that affects mainly synovial joints with a possibility of extra-articular manifestation.<sup>5</sup> in whole

world rheumatic disease is the most common cause of physical impairment in society. The lives of more than one million people are physically impaired by rheumatic disorders and one fifth of these are severely disabled with a male to female ratio of 1:3.<sup>6</sup>

Prevalence of the disease is approximately 0.8% of the population and about 80% of the people develop this disease between the age of 35yrs and 50 yrs.<sup>7</sup>

*Basti* is the best remedy for alleviation of *Vatadosha* as well as *Pitta*, *Kapha* and *Rakta Dosha*. *Acharya Charaka* has considered *Basti Chikitsa* as half of the treatment of all disease while other considered it as complete remedy for all the ailments.<sup>8</sup> *Acharya Chakradatta* had indicated *Vaitarana Basti* in *Shool*, *Anaha* and *Amavata*. *Vitarana Basti* is a type of *Shodhana basti* which has been indicated after the period of *Brihatrayi*. The name *Vaitarana* itself signifies the name of a river which can bring back dead to live.<sup>9</sup>

The features of *Amavata* are much identical to RA, an auto immune disorders which causes chronic inflammatory and symmetrical poly arthritis.<sup>10</sup> presently available modern medication for rheumatoid arthritis and medication for pain (NSAIDs) is causing many side and toxic effects and requires long term medication which suppresses immunity and produces other disease.<sup>11</sup> Hence the people are looking with a hope towards *Ayurveda* to overcome this challenge.

## MATERIALS AND METHODES

A condition when *Ama* gets associated with *Vata Dosha* is known as *Amavata*.<sup>12</sup> It is a pathological condition where there is simultaneous aggravation of *Vata* and *Kapha Dosha* within *Koshtha* and after *Vimarga Gamana* these *Doshas* settle down into *Trika Sandhi* resulting *Gatra Stabdhta* and give rise to *Amavata*.<sup>13</sup>

*Stabdhta*:- inability to perform the *Namanadi karma*.<sup>14</sup>

*Trika sandhi*:-

According to *Madhavakara* – *Trika* means *Kati*, *Manya*, *Ansha Sandhi*.<sup>15</sup>

According to *Acharya Dalhana* – *Trika* is<sup>16</sup> *Shroni kanda bhaga* (~sacro-iliac region/ sacrum) OR *Bahu Greeva Sanghata Sthala* (~scapular joint, acromioclavicular joint).

According to *Arunadatta* – *Prishtha dhara*.<sup>17</sup>

Hence *Trika* can be sacral joint, scapular joint, intervertebral joints, cervical joint, ileosacral joint and all other *Shakhagata Sandhis*.

## CLASSIFICATION OF AMAVATA

According to involvement of *doshas*<sup>18</sup>:-*Ek doshaja*, *Dwidoshaja* and *Sannipataja*.

According to clinical manifestation<sup>19</sup>:-*Vishtambhi Amavata*, *Gulmi Amavata*, *Snehi Amavata*, *Sarvangi Amavata*, *Shirogurava* and *ama mala*, *Pakva Amavata* .

According to severity (*Madhava* 25/6,7-10) :- *Samanya* and *Pravrudha Amavata*.

According to chronicity (*Gana nath sena*):- *Naveena* and *Jeerna Amavata*

According to prognosis / *Sadhyasadhyata*<sup>20</sup>:- *Sadhya* (curable) - *ekdosha*

*Yapya* (manageable) - *Dwidoshaja*

*Krichchhrasadhya* (non curable) – *Sannipataja* with generalize swelling.

## NIDANA (Causative factors):-

*Nidana* can be described as the factors responsible for development of disease. It is important as the avoidance of etiological factor forms the first line of treatment to prevent the pathogenesis of any disease.

*Madhavakara* has described the causative factors for *Amavata* as- *Viruddha ahara* (unwholesome diet), *Viruddha cheshta* (erroneous habits), *Mandagni* (diminished *agni*), *Nishchalata* (sedentary life) and exertion immediately after taking *Snigdha Ahara*.<sup>21</sup> Other *Nidanas* like may includes – *Chinta*, *Bhaya*, *Krodh*, *Irshya*, *Lobha*, etc. *Manasik* factors causes *Mandagni* and *Ama* formation<sup>22</sup>.

## PURVARUPA

*Acharya Vangasena* has mentioned *Shiroruja* (headache) and *Gatraruja* (bodyache) as the *Purvarupa* of *Amavata*.

## **RUPA (SYMPTOMS)**

The sign and symptoms of *Amavata* can be classified under the following categories:-

**Pratyatma Lakshana**<sup>23</sup>- *Sandhishoola* (*Vrishchika danshavata vedana*), *Sandhishoth* (swelling of joints), *Sandhi graha / Stabdhatta* (joint stiffness) and *Sparsh-Asahyata* (tenderness of joint). **Samanya Lakshana**<sup>24</sup>- General sign and symptoms seen in the patients of amavata are-

*Angamarda* (generalized bodyache), *Aruchi* (anorexia), *Trishna* (excessive thirst), *Alasya* (lethargy), *Gaurava* (heaviness), *Jwara* (fever), *Angashunata* (oedema of different parts of the body including joints), *Apaka* (indigestion).

**Doshanubandha lakshana**<sup>25</sup>:- *Vatanuvandh-Shoola*, *Pittanubandh- Raga* (redness) and *Daha* (burning sensation) around *sandhi sthana* And *Kaphanubandha- Staimitya*, *Gaurava*, *Kandu*.

**Pravridha lakshana**<sup>26</sup> :-

*Saruja shoth* (pain and swelling) in hands, legs, ankle, knee, wrist, shoulder and hip joints, *Vrishchika danshavata vedana* (scorpion bite like pain), *Bahumutrata* (polyuria), *Agnidaurbalya* (indigestion), *Praseka* (salivation), *Aruchi* (anorexia), *Gaurava* (heaviness), *Utsah hani*, *Vairasya* (tastelessness), *Daha* (burning sensation), *Kukshikathinya* and *Kukshishool* (abdominal pain), *Nidraviparyaya* (sleep disturbance), *Chhardi* (vomiting) and *Trishna* (thirst), *Bhrama* (vertigo) and *Murchha*, *Hridgraha*, *Jadyata* and *vibandha* (constipation). These symptoms can be seen in *Pravriddhavastha* of *Amavata*.

## **SAMPRAPTI (PATHOGENESIS)**

It is defined as the process of manifestation of the disease by specific action of vitiated *Dosha*, *Dushya* and *Srotasa*.<sup>27</sup> *Acharya Madhava* has described *Samprapti* of *Amavata* which can be explained into the following steps:-

**Nidana sevana and ama formation**<sup>28</sup>:-

Due to *Nidana Sevana* such as *Ahar dravya* possess *Snigdha*, *Sheeta*, *Guru*, *Manda Guna* which decreases the function of *Agni* and causes *Agnimandya*. This *Mandagni* is unable to digest the food properly and lead to formation of 'Ama'.

**Vitiation of vata dosha and circulation of ama**<sup>29</sup> :-  
*Ama* formed due to *Nidana sevana* causes blockage of channels (*Srotodha*). Due to *Srotodha* vitiation of *Vata Dosha* takes place, which circulates the *Ama* through the body via channels and stops where there is *Kha-vaigunya* that is *Shleshmasthanana* (*Sandhistanana*).

**Dosha –dushya sammurchhana**<sup>30</sup> :-

The *Ama* with vitiated *Vata Dosha* circulates throughout the body and lodge at *Kha-Vaigunya* and interacts with other *Dosha* and *Dushya*, obstructing the *Srotasa* and produces various symptoms. Later the *Ama* attains different color and become more viscous or slimy and gets stuck to the *Srotasa*. It further produces more *Kleda* in *Srotasa*. This all causes deprivation of nutrition to the *Dhatu* which lead to *Dhatukshaya* and *Daurbalya*.

**Sthanasamshraya and manifestation of disease**<sup>31</sup>:-

The vitiated *Vata* hampers the production of *Rasa Dhatu* which in turn causes deprivation of nourishment to further *Dhatu* and causes *Daurbalya*, *Hridgaurava* and other *Sarvadaihik* symptoms are produced but are not clear. Later due to *Sthanasamshraya* of *Ama Dosha* to *Kati*, *Trika*, *Prishtha* etc. local symptoms like *Shool*, *Shoth*, *Stabdhta* are produced. Other parts of body as *Peshi*, *Shira*, *Snayu* get affected and *Gurugatrata* appears. Gradually other symptoms also appear in prominent form and pertain with disease.

**Treatment**<sup>32</sup>

The line of treatment described for *Amavata* as “*Langhanam swedanam tikta*” can be summarized as –

1. Measures to bring *Agni* to their normal state.
  2. Measures to digest *Ama*.
  3. Measures to eliminate vitiated *Vata* and *Ama*.
- To fulfill all these, *Acharyas* have suggested use of bitter and pungent food and drugs, appetizers and digestants, *Langhana*, hot fomentation, use of purgatives, enema (*Kshara basti*) and dietary restrictions.

## RHEUMATOID ARTHRITIS

RA is an autoimmune chronic inflammatory disease. Autoimmune disorders are illness that occurs when the body tissues are mistakenly attacked by its own immune system. RA is characterized by inflammation of synovial joints leading to joint and peri-articular tissue destruction as well as a wide variety of extra-articular features.

Rheumatoid arthritis is formed of

The term 'rheuma' means stiffness

The term Arthritis derived from 'arthros' means inflammation of joints.<sup>33</sup>

RA is a chronic multi system disease of unknown cause. Characteristic features of which persistent inflammatory synovitis is usually involving peripheral joints in a systemic distribution. The potential of synovial inflammation to cause cartilage destruction is the hallmark of the disease.<sup>34</sup>

### CAUSE<sup>35</sup>

The actual cause of the disease is still to be explored.

The possible causative factors are :-

Hereditary, infection, super antigen driven disorder, nutrition and metabolism, endocrine secretions, autoimmunity and psychological factors etc.

### PATHOGENESIS<sup>36</sup>

Once the inciting agent has activated the immune system, a range of intersecting immunological pathways operate, leading to joint destruction. Joint deformity occurs in RA because the cartilage and then the bone is eroded by the proliferative synovial tissue. This process leads to increase laxity of ligaments around the joints, subluxation of tendons and subsequently of joints, and inflammation of many other tissues in the body.

### PRESENTATION<sup>37</sup>

RA presents as acute polyarthritis developing over a few days, or more commonly, weeks to months. Systemic features such as fatigue and diffuse musculoskeletal pain may occur before frank swelling of joints. The disease commonly presents in the metacarpophalangeal joints or metatarsophalangeal joints and wrist. Morning stiffness is a common ear-

ly feature and boggy synovial tissue can be demonstrated on examination.

The criteria laid down by **American Association Of Rheumatism** for the disease diagnosis should be followed for the confirmation. Those are<sup>38</sup>:-

- Morning stiffness lasting for more than an hour
- Arthritis of 3 or more joints
- Arthritis of hand joints
- Symmetrical arthritis
- Presence of rheumatoid nodules
- Radiological changes such as osteoporosis.

### DIAGNOSIS<sup>39</sup>

- a. Clinical criteria for the disease must have been present for at least 6 weeks.
- b. Laboratory investigations
  - Increased WBC count
  - Thrombocytosis
  - Mild normocytic anaemia
  - High ESR or acute phase reaction
  - Positive rheumatoid factor
  - Positive anti-CRP antibody
  - Arthrocentesis of synovial fluid shows it to be straw colored with increased neutrophils.

## VAITARANA BASTI

*Basti*, a part of the elimination procedure, has been given special status from classical period<sup>40</sup>. One of the treatment of *Amavata* according to *Yogaratanakar* is *Basti*. Owing to the diversity of combination of drugs used in the *Basti*, it can perform diverse functions like *Shodhana* (cleansing) *Shaman* (pacifying) *Sangrahana* (checking). In *Amavata* as disease progresses, *Margavarodha* (obstruction) increases. So, it requires cleansing therapy which can cleanse the closed channels and restore its normal function. *Vaitarana Basti* has very potent cleansing action<sup>41</sup>. It is a kind of *Niruha basti* and is mentioned by and *Chakradutta* (*Niruhadhikara* 73/32) and *Vangasena*. It got its name due to the specific ability to cure disease.<sup>42</sup>

*Amavata* is *Madhyammargashrut* disease. These *Doshas* if brought into the *Koshtha*, can be expelled

out by nearest root. Owing to the potency, *Vaitarana Basti* fetch the *Doshas* in *Koshtha* by creating substantial increase, liquefaction in *Doshas* and by digesting *Ama* thereby opening the blocked channels keeping *Vata* in control. These vitiated *Doshas* are then expelled out from anal root by *Basti*.<sup>43</sup>

#### Preparation of *Vaitarana Basti*<sup>43</sup>

##### Ingredients –

<i>Saindhava lavana</i> (rock salt) (12gm.)	1 Karsha
<i>Chincha</i> ( <i>Tamarindus indica</i> ) (50gm.)	1 Pala
<i>Guda</i> (jaggery) (25gm.)	½ Pala
<i>Tila taila</i> (sesame oil)	(50ml)
<i>Gomutra</i> (200ml)	1 Kudava

**Table 1:**

s. no.	Dravya	Rasa	Guna	Veerya	Vipaka	Action
1.	<i>Pakva Amlika</i>	<i>Amla, Madhura</i>	<i>Laghu Ushna Ruksha</i>	<i>Ushna</i>	<i>Amla</i>	<i>Vatakaphashamak, Pittavardhak</i>
2.	<i>Guda</i>	<i>Madhura, Lavana</i>	<i>Guru, Snigdha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Vatapittaghna, Kaphavardhaka</i>
3.	<i>Saindhava Lavana</i>	<i>Lavana, Madhura</i>	<i>Laghu, Snigdha, Sukshma</i>	<i>Unushnasheet a</i>	<i>Madhura</i>	<i>Tridoshaghna</i>
4.	<i>Gomutra</i>	<i>Katu, Lavana, Tikta</i>	<i>Ushna, Tikshna, Laghu, Ruksh Bhedi</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphavataghna, Pittakara</i>
5.	<i>Tila tail</i>	<i>Madhua, Kashaya, Tikta</i>	<i>Vyavai, Vikasi, Sara, Vishada, Snigdha, Sukshma, Lekhana</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Vatakaphashamak, raktapittakruta</i>

#### Method of preparation

- Mix *Guda* (25gm) in water and evaporating required quantity of water so as to make the solution dense to be used as honey-60ml.
- *Saidhava lavana* is added- 12gm
- *Moorchita tila taila* is added- 50ml
- *Chincha* is put first in hot water, mixed well and filtered. Then the liquid is added to the above mixture- 60ml.
- Lastly 200ml of *Gomutra* was added slowly and mixing continued so as to have uniform *Basti Dravya*.

## DISCUSSION

*Vaitarana basti* is a type of *Mridu kshara basti*, works on the basis of *Guna Vaisheshika Siddhanta* shows significant result in *Amavata*.

It constitutes *Amlika, Guda, Saindhava, Gomutra* and *Tila tail* in the ratio 4:2:1:16:4 as per requirement. As a whole, the properties of *Vaitarana basti* can be considered as *Laghu, Ruksha, Ushna,*

*Tikshna guna* which are opposite to *Guru-Snigdha guna* of *Kapha*. Most of the drugs of *Vaitarana Basti* possess *Vatakapha Shamak* action. These properties of *Vaitarana basti* are antagonist to *kapha* and *ama*, hence it provides significant improvement in the sign and symptoms of disease.

*Saindhava lavana* via its *Sukshma* and *Tikshna guna* causes *Srotoshodhana* via overcoming the ‘*Sanga*’ and helps to pass the drug molecules in the systemic circulation through mucosa. Thus it helps the *Basti Dravya* to reach up to the molecular level. It also possesses irritant property, so helps in the elimination of waste material. It is capable of liquefying the viscous matter and break down them into tiny particles. Instead of honey jaggery (*Purana Guda*) is used which along with *Saidhava lavana* forms homogeneous mixture and forms a solution having properties to permeable the water easily. The retention of irritants may be favored by making its solution as nearly isotonic as possible by using colloidal fluids. *Purana Guda* (jaggery) is *Laghu, Pathya,*

*Anabhishtyandi*, *Agnivardhaka* and *Vatapittashamaka*. It also helps in carrying the drugs up to micro-cellular level. In this *Basti*, *Tila taila* is also added to the solution of jaggery and *Saindhava* which helps in forming the uniform mixture. *Chincha* posses *Ruksha*, *Ushna*, *Amla*, *Vatakaphashamaka* properties which makes it useful for the *Amavata*. *Gomutra* is the chief content of *Vaitarana Basti* which owing to its *Katu rasa*, *Katu vipaka*, *Ushna virya*, *Laghu*, *Ruksha* and *Tikshna Guna* pacify the *Kapha Dosha*. It also possesses *Tridosahara*, *Agnideepana*, *Pachana*, *Srotovishodhana* and *Vatanulomana* properties.

The drugs administered through the rectum can achieve higher blood levels due to partial avoidance of hepatic first pass metabolism because rectum has rich blood and lymph supply so the drugs can cross the rectal mucosa as they can cross other lipid membrane<sup>44</sup>. So, unionized and lipid-soluble substances are readily absorbed from the rectum. The portion absorbed from upper rectal mucosa is carried by superior hemorrhoidal vein into the portal circulation, whereas that absorbed from lower rectum enters directly into the systemic circulation via the middle and inferior hemorrhoidal veins. Hence administration of drugs in the *Basti* form has faster absorption and provides quicker results. The rectal wall contains pressure receptors and neuroreceptors which are stimulated by various drugs present in *Basti Dravya* which results in increase in conduction of sodium ions. The inward rush of sodium ions through the membrane of unmyelinated terminal is responsible for generating action potential. *Saindhava Lavana* present in *Vaitarana Basti* probably generates action potential and helps in diffusion and absorption of the *Basti Dravyas*.

*Basti* therapy can be considered as a prime remedy for *Amavata* as it exerts a more systemic action besides exerting local action via large intestine involving enteric nervous system.

Enteric nervous system is a collection of neurons in the gastro-intestinal tract constituting the brain of gut. *Basti* therapy may be the stimulator for many

intra-luminal, luminal and whole body function. Apart from its influence on GIT, enteric nervous system also influences the autonomic nervous system thereby producing systemic effect.<sup>45</sup>

The overall effect of *Vaitarana Basti* can be summarized as encolonial i.e. action on tissues of colon, endocolonic i.e. action inside colon and diacolonial (systemic action). Thus *Basti Dravyas* after reaching large and small intestine get absorbed from intestine and due to *Laghu*, *Ushna*, *Tikshna* and *Ruksha guna* of drugs of *Vaitarana basti*, it breaks the obstructions and expels out the morbid material from all over the body thus helps in breaking down the pathogenesis of disease.<sup>46</sup>

## CONCLUSION

*Amavata* is a commonest and most crippling joint disorder usually seen in middle age. It is a disease of *Madhyam Rogamarga* with *Chirkari* nature. *Ama* and *Vata* being contradictory in nature make it difficult to plan the line of treatment. Thus *Vaitarana Basti* can be thought of as an ultimate solution for the eradication of *Vata Dosh* and *Ama* as the drugs of *Vaitarana Basti* posses *Vatakaphashamaka*, *Vatanulomaka* and *Amapachaka* properties. It also posses *Vedanasthapaka* and *Nadibalya* properties as well as balances *Agni* which is the main cause of development of *Amavata*. Hence, *Vaitarana Basti* can be very effective treatment for *Amavata*.

## REFERENCES

1. Khagram Rita, Mehta C.S., Shukla V.D. Dava A.R. Clinical effect of *Matrabasti* and *Vatari guggul* in the management of *Amavata* (rheumatoid arthritis). AYU. Jul-sept2010; 31(3): 343-350.
2. Pandey Shweta A., Joshi Nayan P., Pandya Dilip M. Clinical efficacy of *Shiva guggul* and *Simhanad guggul* in *Amavata* (rheumatoid arthritis). AYU. Apr-jan2012;33(2):247-254.
3. Wetal V.R., Huperikar R. Study of effect of *Vaitarana basti* in *amavata* :A clinical trail. Int. J. Ayu. Pharm chem. 2016;4(2):38-45.
4. Mahto R.R. , Dave A.R., Shukla V.D. A comparative study of *Rasona rasnadi ghanavati* and *Simhanad*

- guggul* on *Amavata* w.s.r. to rheumatoid arthritis. AYU. Jan-march2011;32(1):46-54.
5. Khagram Rita, Mehta C.S., Shukla V.D. Dava A.R. Clinical effect of *Matra basti* and *Vatari guggul* in the management of *Amavata* (rheumatoid arthritis). AYU. Jul-sept2010; 31(3): 343-350.
  6. Thanki K., Bhatta N., Shukla V.D. Effect of *Kshara basti* and *Nirgundi ghanavati* on *Amavata* (rheumatoid arthritis). AYU. Jan- march 2012;33(1):50-53
  7. Sasane P., Saroj U.R., Joshi R.K. Clinical evaluation of efficacy of *Alambushadi ghanavati* and *Vaitarana basti* in the management of *Amavata* w.s.r. to Rheumatoid arthritis. AYU. 2016; 37(2):105-112.
  8. Gangwar Anil et al. evaluation of clinical efficacy of *Vaitarana basti* and *Rasnadi gutika* in the management of *Gridhrasi* w.s.r. to sciatica. International Journal of Herbal Medicine. 2015;3(2):10-15.
  9. Wasedar V.S., Ragi Madhushree, Grampurohit P.L. Versatility of *Vaitarana basti* – A retrospective study. IAMJ. Jan2018;2(2):916-922.
  10. Gupta S.K., Thakur A.B., Dudhmal T.S., Nema A. Management of *Amavata* (rheumatoid arthritis) with diet and *virechana*. AYU. Oct-dec2015;36(4):413-415.
  11. Dwivedi S.P. Role of *Vaitarana basti* and *Brihatvata chintamani rasa* in the management of *Amavata* w.s.r. to Rheumatoid arthritis. Ayurvedchintana. Oct 2015.
  12. Vijayarakshita and srikanthdatta;madhukosha commentary on *Madhava Nidana* 25/5, chaukhambha orientalia prakashana, Varanasi, reprint 2008 pg no 510.
  13. Madhavakara, Madhava Nidana. Madhukosha Sanskrit commentary by vijayarakshita, srikanthdatta and vidyotini hindi commentary by sudarsana sastri edited by yadunandana upadhyay. Chaukhambha prakashana Varanasi. Revised edition reprint 2009. Nidana sthana. 25/5, Pg no 509.
  14. Sushruta, sushruta samhita, nibandhsangraha commentary of dalhanacharya, nyayachandrika commentary of gayadas, edited by ambika data shashtri; chaukhambha orientalia Varanasi, reprint edition 2010, sutra sthana 15/24, pg no 81.
  15. Ibid 13, 25/8, pg no. 510.
  16. Sushruta, sushruta samhita, nibandhsangraha commentary of dalhanacharya, nyayachandrika commentary of gayadas, edited by ambika data shashtri; chaukhambha orientalia Varanasi, reprint edition 2010, sutra sthana 15/24, pg no 81.
  17. Vagabhatta, ashtanga hridayama, commentary by arundatta, edited by brahmaanand tripathi, 1<sup>st</sup> edition. Chaukhambha prakashana Varanasi 2009. Sutra sthana 12/15, pg no. 198.
  18. Ibid 13,25/12, pg no. 512.
  19. Harita samhita, chikitsa sthana. Text wth English translation commentary by dr. K.H. Krishna murty and edited by prof. priyavata Sharma. Chaukhambha viavabharati publication Varanasi 2008, amavata chikitsa 21/5-6, pg no. 200.
  20. Ibid 13, 25/12, pg no. 512.
  21. Ibid 13, 25/1,pg no.508
  22. Ibid 13, 25/1, pg no. 508.
  23. Agnivesha, anjana nidana, commented by S. Suresh Babu, chaukhambha Sanskrit pratishthana Delhi, 1<sup>st</sup> edition 2005. Pg no 210.
  24. Ibid 13, 25/6, pg no. 511.
  25. Ibid 13, 25/11, pg no. 512.
  26. Ibid 13, 25/7-10, pg no. 511.
  27. Agnivesh, charaka, Dridbala, charak samhita, nidana sthana 1/11, ayurved dipika's ayushi hindi commentary by H.S. kushwaha, chaukhambha Sanskrit pratishthana, Delhi 2009 pg no. 415.
  28. Ibid 13, 25/1, pg no. 508.
  29. Ibid 13, 25/2, pg no. 509.
  30. Ibid 13, 25/3, pg no. 509.
  31. Ibid 13, 25/4-5, pg no. 509.
  32. Asharani DH et al.,The effect of doshahara basti and vaitarana basti in the management of amavata. Ijam.2015;6(2):171-177.
  33. [http://en.wikipedia.org/wiki/Rheumatoid\\_arthritis](http://en.wikipedia.org/wiki/Rheumatoid_arthritis) accessed on 13/03/2018.
  34. harrison's principles of internal medicine, edited by Dennis L kasper et al, published by McGraw hill medical publication division. 17<sup>th</sup> edition 2008, pg no. 2090.
  35. [http://en.wikipedia.org/wiki/Rheumatoid\\_arthritis](http://en.wikipedia.org/wiki/Rheumatoid_arthritis), [www.medicinenet.com](http://www.medicinenet.com); accessed on 13/03/2018
  36. Golwalla medicine for students, edited by Aspi F. Golwalla and Shahrukh A. Golwalla, Publishrd by Dr. A.F. Golwalla, The National book depot , Mumbai edition 22, reprint 2008, pg no 1037-38.
  37. Golwalla medicine for students, edited by Aspi F. Golwalla and Shahrukh A. Golwalla, Publishrd by

- Dr. A.F. Golwala, The National book depot , Mumbai edition 24, reprint 2014, pg no 792.
38. Wasedar V.S., Ragi Madhushree, Grampurohit P.L. Versatility of *Vaitarana Basti* – A retrospective study. IAMJ. Jan2018;2(2):916-922.
  39. Golwala medicine for students, edited by Aspi F. Golwala and Shahrukh A. Golwala, Publishrd by Dr. A.F. Golwala, The National book depot , Mumbai edition 24, reprint 2014, pg no 793.
  40. Sankarnarayan M. An analysis of formulation of *Vaitarana Basti* on the basis of *Ayurvedic* texts and commentaries. Indian Journal of History of Science .2009;44(2):247-259.
  41. Wetal V.R., Huperikar R. Study of effect of *Vaitarana Basti* in *Amavata* :A clinical trail. Int. J. Ayu. Pharm chem. 2016;4(2):38-45.
  42. Wanole M.R., Clothe D.S. *Vaitarana Basti* in *Amavata* -a pilot study . ejpmr. 2016;3(11)379-382.
  43. Wanole M.R., Clothe D.S. *Vaitarana Basti* in *amavata* - a pilot study . ejpmr. 2016;3(11)379-382.
  44. Wasedar V.S., Ragi Madhushree, Grampurohit P.L. Versatility of *Vaitarana Basti* – A retrospective study. IAMJ. Jan2018;2(2):916-922.
  45. Sasane P.U., Joshi R.K. A Clinical study of *Alambushadi ghanavati* and *Vaitarana Basti* in the management of *Amavata* (Rheumatoid arthritis). WJPR.2015;4(10):1281-1293.
  46. Sasane P., Saroj U.R., Joshi R.K. Clinical evaluation of efficacy of *Alambushadi ghanavati* and *Vaitarana basti* in the management of *Amavata* w.s.r. to Rheumatoid arthritis. AYU. 2016; 37(2):105-112.
- 

**Source of Support: Nil**

**Conflict Of Interest: None Declared**

How to cite this URL: Dewangan Neetu et al: Role Of Vaitarana Basti In The Management Of Amavata W.S.R. To Rheumatoid Arthritis – A Review Article. International Ayurvedic Medical Journal {online} 2018 {cited July, 2018} Available from:  
[http://www.iamj.in/posts/images/upload/1448\\_1455.pdf](http://www.iamj.in/posts/images/upload/1448_1455.pdf)