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Review Article

VATAGAJENDRASINGH RASA - IN THE MANAGEMENT OF *AMAVATA*: A REVIEW

Mahakal Nilesh Sharad[1]*, Gulhane Harshad[2]

*[1]Assistant Professor, Department of Rasashastra and Bhaishajya Kalpana, Gurudev Ayurved College, Gurukunj Ashram, Amravati, Maharashtra, India.

[2]Assistant Professor, Department of Kayachikitsa, MUP's Ayurved College, Hospital and Research Center, Risod, Maharashtra, India.

KEYWORDS: *Vatagajendrasingh Rasa*, Herbomineral formulation, *Ativridhha Amavata.*

***Address for correspondence**
Dr. Nilesh S. Mahakal
Assistant Professor,
Department of Rasashastra and Bhaishajya Kalpana
Gurudev Ayurved College,
Gurukunj Ashram,
Amravati, Maharashtra, India
Email:
nilesh.mahakal@gmail.com
Mob: 08149807710

ABSTRACT

The disease *Amavata* which can be correlated Rheumatoid arthritis (RA) in modern medicine, now a days it is a common problem due to changed lifestyle, food habits and lack of physical activities. It is the common most crippling and disabling disorder in the world. *Ama* (indigested end product of food) and *Vata* (one of the three *Dosha*) both are equally important for the establishment of the disease, predominantly produces *Sandhishoola* (joint pain), *Sandhishotha* (joint swelling), *Gaurava* (heaviness), *Jwara* (fever). The prevalence of RA is approximately 0.8% of the population (range 0.3 to 2.1%); women are most commonly affected. There are several formulations for the management of *Amavata*, but only that, which can bring about a cure, is a correct medicine. Use of herbomineral formulations is common in present *Ayurvedic* practice. Ayurvedic drug '*Vatagajendrasingh Rasa'* is a unique formulation mentioned in *Bhaishajyaratnawali* for the management of *Amavata*. The aim of the study is to evaluate the possible mode of action of the formulation in the management of Amavata. The main ingredients are *Kajjali, Abhraka Bhasma, Tamra Bhasma, Loha Bhasma, Naga Bhasma, Shuddha Vatsanabha, Shuddha Tankana, Shuddha Hinga, Shuddha Jatiphala* etc. Purpose of composition is *Samprаptibhanga* (break the pathogenesis) by *Agnideepana* (increase appetite), *Amapachana* (digestion) and management of symptoms and complications (*Ashthivikruti, Sandhikunjana, Sankocha, Khanjatva, Agnidaurablya* etc.) In *Ativriddha* (Chronic) *Amavata.*

INTRODUCTION

Amavata (Rheumatoid Arthritis) possess a challenge to the physician owing to its apparent chronicity, incurability, complications and morbidity. Despite of the administration of best available modern drugs, the disease has a tendency to persisting progress and cripple the patients. *Bhishak* (Doctor), *Dravya* (Medicines), *Upashtata* (Nursing care) and *Rogi* (Patient) are the four *Pada* (Pillars) of *Chikitsa*. Although *Bhishak (Doctor)* is prime, rest are equally important.[1] One of the oldest records of the disease is a brief description in the *Rigveda*, which roughly dates back to 1500 B.C. In the 9th century A.D., Indian physician, Madhava wrote a full description of *Aamavata*[2] but it was not until 1800 that the disease, described by French physician Augustin Jacob Landré-Beauvais, was recognized in the western world. In 1859, British rheumatologist Alfred Baring Garrod, named the disease RA. In the last 50 years, extensive research by modern medical scientists has shed light on various pathways of inflammation in RA, but the etiology of the disease is still unknown.[3] New research has revealed various biological agents that block the pathways of inflammation and provide much-needed relief to a significant number of patients. However, these agents are very expensive, require close monitoring, have side-effects, and need to be used indefinitely. In spite of such advancements, a significant number of patients continue to suffer and require more effective relief and in their search, look for better treatments. For the success of treatment one must have sound knowledge of *Dravya Pada* (Medicines). Now a days herbomineral preparations are famous in *Ayurvedic* practice. To get desired in clinical practice these herbo-mineral preparations must be prepared according to protocol and used according to specific *Samprapti* (Pathogenesis), otherwise it may show unwanted effects. Preparation of classical formulations is the responsibility of *Rasavaidya*. But for implementation of *Rasaushadhi* (herbomineral preparations) in clinical practice *Vaidya* must know the pharmacological aspect of medicines i.e., *Guna-Karma* (properties & action), *Doshgnata, Rogaghnata* (disease alleviation), *Matra (dose), Pathyapathya* etc.

According to *Ayurveda* generally all diseases are produced by *Mandagni* (weak digestive activity), it also arises from indigestion, contaminated foods and

accumulation of *Malas* (*Dosas* and waste product). [4] One of the commonly occurring *Agni Vikara* is *Amavata*, simultaneous *Vataprakopa (Vata* vitiation*)* is equally important. Predominantly produces *Sandhi Shoola* (joint pain), *Sandhishotha* (joint swelling), *Gaurava* (heaviness), *Jwara* (fever). It is one of the difficult diseases to cure. *Amavata* can be correlated with Rheumatoid arthritis (RA) of the modern medicine, a chronic multisystem disease of unknown cause. The characteristic feature of RA is persistent inflammatory synovitis, usually involving peripheral joints in a symmetric distribution. The potential of the synovial inflammation to cause cartilage damage and bone erosions and subsequent changes in joint integrity is the hallmark of the disease. The prevalence of RA is approximately 0.8% of the population(range 0.3 to 2.1%); women are most commonly affected. [5]The limitations of the modern medicine and significance of *Ayurvedic* treatment to treat Rheumatoid arthritis are known to the practitioners.

There are several formulations are mentioned in *Ayurvedic* texts for the management of *Amavata*. Each one is composed for unique *Doshadushyasammurchhana, Samprapti (Pathogenesis), Doshagnata, Vyadhiavashta* (State of disease) etc. *Vatagajendrasingh Rasa* is a unique *Kharaliya Rasayana* mentioned in *Bhaishajyaratnavali* for the management of *Amavata.* The main ingredients are *Abhraka Bhasma, Loha Bhasma, Tamra Bhasma, Naga Bhasma, Vatsanabha* etc. The aim of the study is to understand possible mode of action of *Vatagajendrasingh Rasa* in *Amavata Chikitsa*.

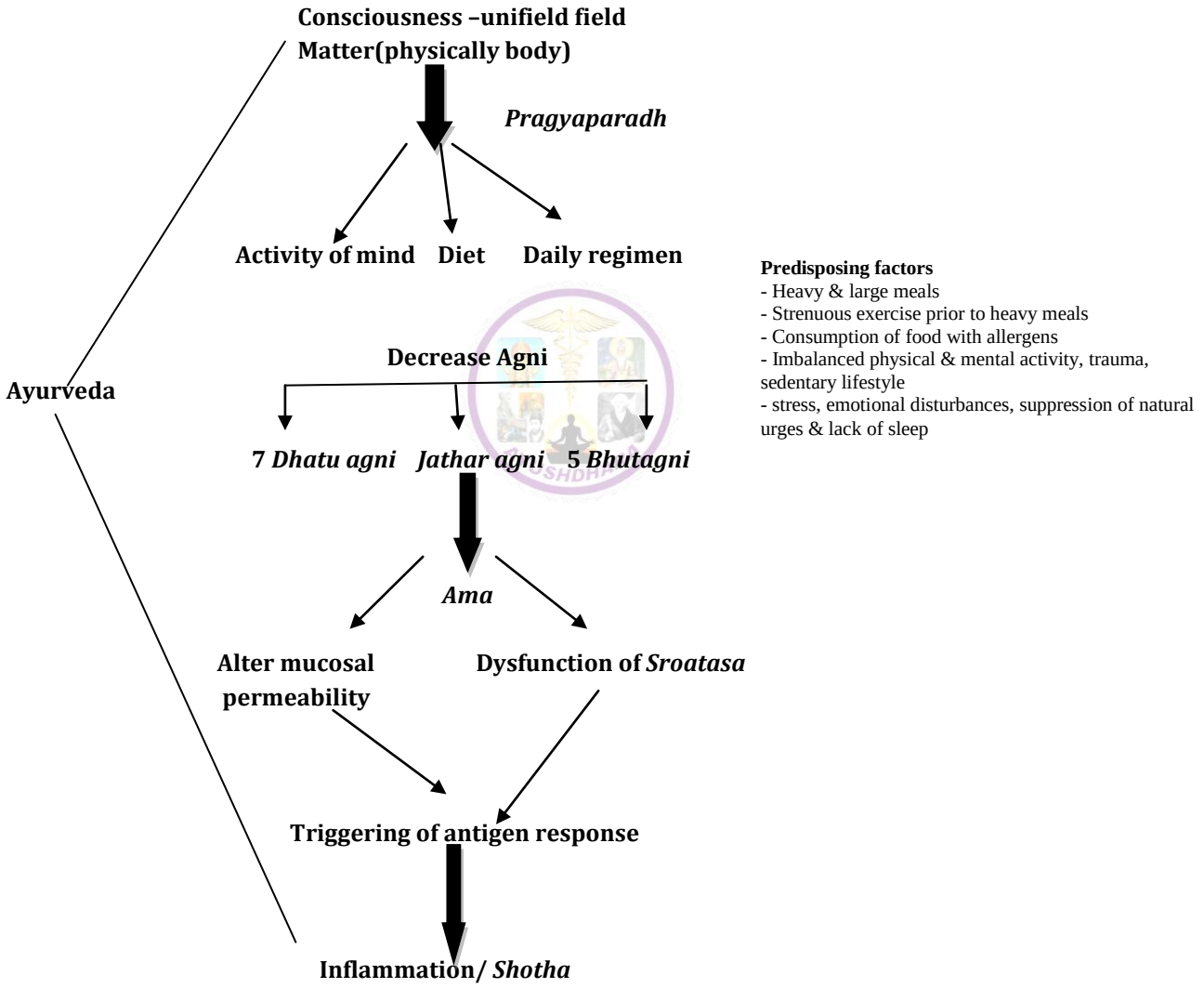

Figure – 1 Pathogenesis of Amavata According to Ayurveda

The main pathogenic event in RA or *Aamavata* is the formation and deposition of *Aama* (explained later) at all levels of body physiology including gastrointestinal and macro and micro channels of the inner transport system of the body. At this point, it is critical to understand the difference of human physiology described by the two healthcare systems. Although, in the recent years modern medicine has started paying credence to mind body medicine it largely studies the working of physical body by using a reductionist approach of understanding the physiology of various organs like lungs, heart, endocrine glands, etc., The understanding of modern biology too is now turning back from over emphasis on molecular biology toward the new approach of systems biology.[6]

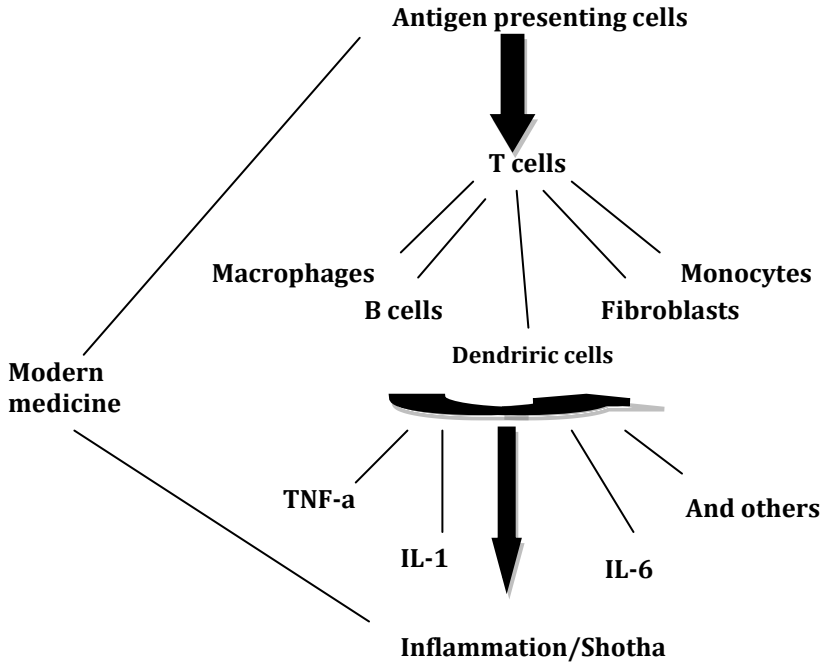

Figure – 2 Pathogenesis of Rheumatoid Arthritis

Pathogenesis of Rheumatoid Arthritis

The pathogenesis of RA is highly complex and involves interconnected cellular and molecular pathways that ultimately cause joint inflammation and damage.[3] There is evidence of genetic predisposition to RA. It is more common in first-degree relatives of patients with RA and other connective tissue diseases. If one monozygotic twin develops RA, the other twin has a 10-15% chance of developing the condition, suggesting that other factors also play a role in its pathogenesis.[7] In the past decade or so, epigenetic processes causing gene modification without affecting the DNA sequence have been identified.[8] DNA methylation and histone modification are examples of the epigenetic mechanisms.[9] The etiological agent that triggers the disease process is unknown; however, it is believed that an infectious agent is most likely the culprit, and trauma, in many cases, is the initiating factor. The main pathological changes that occur in RA include synovial inflammation, cellular hyperplasia and hypertrophy, micro vascular injury, neovascularization, thrombosis, edema with infiltration of mononuclear cells, and increased amount of adhesion molecules. An unknown trigger causes antigen-presenting cells to activate CD4 + T cells, which in turn activate various other cells: Macrophages, fibroblasts, B-lymphocytes, monocytes, and dendritic cells. These activated cells produce various cytokines, which cause inflammation and destruction of the involved tissue.[3] Of clinical significance at this time are Tumor necrosis factor (TNF)-alpha, interleukin (IL)-1 and IL-6. TNF-alpha also stimulates the secretion of other cytokines [Figure 2].

Allopathic Antirheumatic Drugs

Currently drugs form a major part of the management of arthritis. The conventional drug treatment of rheumatoid arthritis consists of analgesics, non-steroidal anti-inflammatory drugs (NSAIDS), disease-modifying drugs (DMARDS) and cortico-steroids. These agents act at various sites in the schema of pathogenetic mechanisms[10,11]. Analgesics act predominantly on the central nervous system to allay the pain. Paracetamol, dextropropoxiphen and low dose aspirin are the most commonly used analgestics. The NSAIDS predominantly inhibit the prostaglandin biosynthesis by blocking the cyclo-oxygenase pathway of arachidonic acid. This group consists of a plethora of drugs such as salicylates, pyrozolon derivatives, propionic acid derivatives, indole group, oxicans, fenamates etc. The disease-modifying drugs have various modes of actions. They probably inhibit the immune complex formation. Frequently used drugs are penicillamine, chloroquine, sodium ourothiomalate. These taken long to act and relief is not seen before 8 to 12 weeks.

Immune-modulating drugs like methotrexate, cyclophosphamide, also modify the course of diseases but their sever toxicity often precludes their use. The action of corticosteroids is less clearly understood. It blocks phospholipase A2 enzyme preventing arachiodnic acid formation and thereby prostaglanding biosynthesis. It also has the ability to prevent the recruitment of neutrophils and monocyte macrophages at the inflammatory site. Steroids are fast acting and are reserved for specific conditions e.g. acute exacerbation. It seems from the foregoing discussion that modern conventional drug treatment is more or less palliative. These drugs do have adverse effects. And some are also expensive. Hence there is a need for new agents for arthritis which are safer, more economical and effective.

Ayurvedic Antirheumatic Drugs

In a preliminary survey of ayurvedic literature it was found that various types of preparations are recommended for rheumatic disorders shows the number of various types of formulations used in rheumatic disorders. Decoctions are prepared by boiling a specific quantity of either fresh or dried plants in measured quantity of water. Kalka means the fresh plants are crushed to make paste. Choornas or powders are prepared by grinding the dried plants to a fine powder. Few powder formulations also contain inorganic constituents. In the literature maximum number consists of pills; eighty per cent of them contain inorganic constituents. Guggulu (Commiphora mukul) forms a major constituent in about 50% of the pills [12].

Table 1:*Vatagajendrasigh Rasa* as per classical text [13]

Sr.	Ingredients	Latin Names	Part used	Proportion	Per dose 360 mg.
1	*Abhraka Bhasma*			1 part	24 mg
2	*Loha Bhasma*			1 part	24 mg
3	*Tamra Bhasma*			1 part	24 mg
4	*Naga Bhasma*			1 part	24 mg
5	*Shuddha Parada*	*Mercury*		1 part	24 mg
6	*Shuddha Gandhaka*	*Sulphur*		1 part	24 mg
7	*Shuddha Tankana*	*Borax*		1 part	24 mg
8	*Shuddha Vatsanabha*	*Aconitum ferox* Wall.	Root tuber	1 part	24 mg
9	*Saindhava Lavana*	*Rock salt*		1 part	24 mg
10	*Lavanga*	*Syzygium aromaticum* Linn.	Flower	1 part	24 mg
11	*Shuddha Hingu*	*Ferula narthex* Boiss.	Exudate	1 part	24 mg
12	*Jatiphala*	*Myristica fragrans* Houtt.	Seed	1/2 part	12 mg
13	*Twaka*	*Cinnamomum zeylanicum* Blume.	Stem bark	1/2 part	12 mg
14	*Tejpatra*	*Cinnamomum zeylanicum* Blume.	Leaf	1/2 part	12 mg
15	*Sookshma Ela*	*Elettaria cardamomum* Maton.	Seed	1/2 part	12 mg
16	*Haritaki*	*Terminalia chebula* Retz.	Pericarp	1/2 part	12 mg
17	*Bibhitaki*	*Terminalia belerica* Roxb.	Pericarp	1/2 part	12 mg
18	*Amalaki*	*Emblica officinalis* Gaertn.	Pericarp	1/2 part	12 mg
19	*Jiraka*	*Cuminum cyminum* Linn.	Fruit	1/2 part	12 mg
20	*Kumari Swarasa*	*Aloe barbadensis* Mill.	Leaf	q.s.	

Preparation

First prepare *Kajjali* from *Parada*and *Gandhaka*, then add all the ingredients which are finely powered. Triturate in *Khalvayantra* with *Kumari Swarasa* (juice). Prepare *Vati* (pills) of 3 *Ratti* (360mg).

Dose: 3 *Ratti* (360mg) or 2 *Ratti* (240 mg)

Anupana : *Dugdha*

Aushadhisevan Kala : *Pratahkala* (at morning)

Indications: *Amavata, Vyadhiksheena, Streeksheena, Nasthashukra, Vanhihina, Khanja, Pangu, Kubja, Mamsaksheena,* 80 *Vatavikara,* 40 *Pittavikara* and 20 *Kaphavikara.*

Table2: *Gunakarma* and *Rogagnata* of Ingredients

Dravya	***Rasa, Vipaka***	***Virya***	***Guna***	***Doshagnata***	***Karma & Rogaghanta (Related to Amavata)***
Kajjali					*Sarvarogahara by Sahapana and Anupana[14]*
Abhraka		*Sheeta*	*Snigdha*	*Tridoshaghna*	*Deepana, Vrishyam, Balyam, Ruchidam, Sarvaroghara[15]*
Loha				*Tridoshaghna*	*Pandu, Balya, Sarvarogahara, Vataroga, Pittavikara, Grahani, Jwara, AgnimandyaAlong with Trikatu and Vidanga – Jaramrutyuhara [16] Along with Triphala – Sarvarogahara [17]*
Tamra	*Tikta, Kashaya, Vipaka Madhura*	*Ushna*		*Kaphapittahara*	*Udaravikara, Amavikara, Urdwadhah Parishodhana, Kshaya, Pandushamana, Lekhan[18]*
Naga	*Tikta*	*Ushna*	*Snigdha,*	*Kaphavatagna*	*Deepana, Amavata, Pramehahara[19]*
Tankana	*Katu*	*Ushna*	*Tikshna*	*Kaphavatagna*	*Agnideepana, Vatamayanidushanam, Hridya[20]*
Vatsanabh	*Katu, Tikta, Kashaya*	*Ushna*	*Yogavahi*	*Kaphavatagna*	*Rasayana,, Deepana, Sheetashamana, Brunhan, Agnimandyaprashamana, Grahani Pandu Jwara Amavata Prashamana, Kativedanahara, Vatavedanaharam Uttamam, Tapashamanam, Shothanidushanam.[21]*

Saindhav	*Lavana,*	*Sheeta*	*Laghu, Snigdha*	*Tridoshahara*	*Hridyam, Ruchipradam, Pachanam, Deepanam,* [22]
Lavanga	*Tikta, Katu*	*Sheeta*	*Laghu, Snigdha*	*Kaphapittahara*	*Deepana, Pachana, Ruchya, Adhmana, Shoola, Kshayahara*[23]
Hingu		*Ushna*	*Teekshna*	*KaphaVatagna*	*Pachana, Ruchyam, Shoola, Udara Anahashamaka* [24]
Jatiphala	*Tikta, Katu*	*Ushna*	*Laghu, Teekshna*	*KaphaVatagna*	*Rochana, Deepana, Grahi, Shwasa Shosa Pinasa Hridroghar.* [25]
Tvaka	*Tikta, Madhura*			*Vatapittagna*	*Shukrala, Balya, Mukhashoshahara, Trishnahra* [26]
Tejapatra	*Tikta, Katu, Swadu*	*Ushna*	*Laghu, Ruksha*	*Kaphavatagna*	*Amahara, Aruchinashaka, Pinasahara* [27]
Ela	*Katu,*	*Sheeta*	*Laghu,*	*Vatahara*	*Kapha Shwasa, Kasahara* [28]
Triphala				*Kaphapittahara*	*Meha Kusthahara, Deepana, Rochana,* [29]
Jiraka	*Katu*	*Ushna*	*Ruksha, Laghu*	*Kaphavatahara*	*Deepana, Sangrahi, Pachanam, Ruchyam, Balyam, Jwaragham.*[30]
Kumari	*Tikta, Madhura*	*Sheeta*		*Tridoshagna*	*Bhedana, Brimhan, Balya, Rasayani, Plihayakritvriddhihara*[31]

DISCUSSION

MODE OF ACTION

Mode of action can be understand on the basis *Samprapti* (pathogenesis) of the disease and *Gunakarma* (properties) of the ingredients.

Kajjali - *Kajjali* possess properties like *Rasayana, Yogavahi* (as catalyst), *Jantughna,* (Amtimicrobial) *Sarvamayahara*. (Corrects all diseases) [32] When *Kajjali* is consumed especially with *Anupana* it cures all types of diseases. Countless formulations, small drug dose, rapid action, desired results, long lasting effects, palatability are the specialties of *Kajjali*.[33] These properties of *Kajjali* are essential to enhance efficacy and potency in prepared drug. *Yogavahitwa* property has importance in pharmacokinetics as it drags whatever is mixed with it. When mixed with other medicines they became more potent and act in low doses. *Kajjali* increases the bio-availability of drug which helps to obtain greater efficacy of drug.[34]

Abhraka Bhasma- in *Ativriddha* (Chronic) *Amavata* to correct *Agnivikruti, Aruchi, Daurbalya, Abhraka Bhasma* is added here which possess properties like *Deepana, Balya,* and *Ruchida.* Besides this *Abhraka Bhasma* along with *Triphala, Trikatu, Chaturjata* and *Lavanga* corrects *Kshaya* and *Pandu*[35] associated with *Amavata.* So that *Trijatak, Lavanga* and *Triphala* added to *Vatagajendrasingh Rasa*. According to modern science Rheumatoid arthritis is an autoimmune disorder. *Shataputi Abhrak* Bhasma, possess a potent In-vitro Immunomodulatory (stimulant) activity in a concentration dependent manner. [36]

Tamra Bhasma - *Amavata* is an *Agnivikara* so the *Agni Niyamana* (Regulation) is one of the goal of treatment. *Tamra* is a one of the best *Agnideepana Drava's* mentioned in *Rasatarangini* as *Deepanamuttamam*. *Agnidaurbalya, Prasek, Kukshaukathinatam, Shoola, Chhardi, Bhrama, Anaha,* are the symptoms of *Ativriddha Amavata*, the basis of these symptoms is *Agnimandya. Tamra Bhasma* corrects all these manifestations. The other main property of *Tamra Bhasma* is *Lekhana*, it scrubs the *Ama* accumulated in *Strotasa* and *Shleshmasthana* to relieve the symptoms. The medicinal dose of *Tamrabhasma* is 1/8 to ½ *Ratti* (15-60 mg).In Single dose of *Vatagajendrasingh Rasa Tamra Bhasma* 24 mg.[37] it means that while composition of formulations assessment of ingredient drug doses is equally important.

Loha Bhasma - In the *Jirna Amavata*, the atrophy, degeneration of muscles, tendons and nerve causes pain where *Loha Bhasma* reduces this painful condition. *Jirna Amavata* leads to the degeneration of the *Dhatus* mainly *Rakta* and *Mamsa* which causes *Pandu, Daurbalya*, and *Bhrama* etc. In this condition *Loha Bhasma* acts as *Rasayana* for all the *Sapta Dhatus*. It mainly nourishes *Rakta* and *Mamsa Dhatu*. *Loha Bhasma* not only increases blood cells but also increases blood circulation, regulates bile secretion by increasing blood flow to the biliary system. Indirectly cures *Jirna Agnimandya*. (*Deepana muttamam – Rasatarangini*) the main action of *Loha Bhasma* is to increase blood cells & flow which helps in restoration of body cells and systems in *Jirna Amavata.*

Further *Loha Bhasma* releases *Nadishoola, Ashthivikruti* in *Amavata Vatasansthan Daurblya* which is present in *Jirna Amavata*. The dose of medicinal *Loha Bhasma* is ¼ to 2 *Ratti* (30 to 240 mg)[38]. In Single dose of *VatagajendrasinghRasa Loha Bhasma* is 24 mg.

There is no significance of *Loha Bhasma* without *Parada* or *Abhraka Bhasma.*

Lohabhasma only intake leads to *Jadata* (Heaviness).[39] Hence Loha Bhasma should be administered with *Parada Bhasma* (*Rasasindura*) or *Abhraka Bhasma*. That's why in *Vatagajendrasingh Rasa* it is *Loha Bhasma* added along with *Abhraka Bhasma.*

Lohabhasma along with *Triphala* and *Madhu* cures all diseases.[40] This justifies the purpose of *Triphala* in this formulation. That's the reason, in most of the *Loha Kalpas Triphala* is added. *Triphala* is one of the best *Loha Shodhana* and *Marana Dravya*. Hence *Loha Bhasma* when used with *Triphala* it does not show adverse effects and show better therapeutic actions.

Naga Bhasma - In *Rasaratnasamucchaya Amavata* is one of the indication of *Nagabhasma*. In the *Jirna Amavata*the dominant *Vata Dosha* leads to degeneration of *Asthi, Majja Dhatu* leads to *Sankocha, Khanjata*, *Sandhisankocha* (joint stiffness and bending of the bones), where *Naga Bhasma* provides *Bala* to *Asthi* & *Majja Dhatu*. *Naga Bhasma* regulates the formation of *Mamsa Dhatu* & *Snayu.* Also provides energy to it hence can be used in degeneration of *Mamsa* & *Snayu*, usually occurs in *Jirna Vatavyadhi*. *Naga Bhasma* acts as a *Rasayana* for degenerative and long term *Vatavyadhi* as it provides energy to all the *Sapta Dhatus.* Medicinal dose of *Nagabhasma* ¼ to 1 *Ratti* (30 to 120 mg). [41] In Single dose of *Vatagajendrasingh Rasa Naga Bhasma* is 24 mg. Which is little below of par dose. But it should be keep in mind that *Kajjali* in the formulation acts as *Yogavahi* so the ingredients show better effects in low doses.

Vatsanabha - In *Amavata/Kaphanubandhi Vatavyadhi Vatsanabha* digest *Ama* residing in *Rasa* and at the joints etc. (As it possess *Vyavayi*and *Amapachana* property) and thereby removes obstruction to movement of *Vyanavayu* through the joints and eliminates inflammation of joints (*Sandhishotha*) and stiffness of joint (*Sandhigraha*). It also reduces the *Sandhishoola* (Joint pain). It also possess the properties like *Jwarashamaka; Swedala* hence can be used in *Amavata/ Kaphanubandhi Vatavyadhi*. In *Vatashoola Vatsanabha* used along with *Tamrabhasma* [42]. Perhaps best medicine for the treatment of *Amavata* as it is a potent Analgesic, anti-inflammatory drug. The medicinal dose of *Vatsanabha* is 1/16 to 1/8 *Ratti* (7.5 to 15 mg). In Single dose of *Vatagajendrasingh Rasa Shuddha Vatsanabha* is 24 mg. In the commentary of Ambikadatta Shastri on Bhaishajyaratnawali the dose of *Vatagajendrasingh Rasa* mentioned is 2 *Ratti* (240mg approx.).[43] If we take this as therapeutic dose then the quantity of *Vatsanabha* in single dose is become 16 mg, which is acceptable. If we discuss other formulations i.e., in single dose of *Tribhuvankirti* (1 *Ratti* - 120 mg) the quantity of *Vatsanabha* is approximately 20 mg. [44] in single dose of *Hinguleshwar Rasa* (1/2 *Ratti* – 60 mg) *Vatsanabha* is 20 mg.[45] Even an acute poison can become an excellent drug if administered properly. Even a drug, if not properly administered, becomes an acute poison. [46]So in case of *Vishadravya* we must look for therapeutic dose first. *Vatsanabha* is potent vegetable poison hence should be used cautiously. Contraindications of *Vatsanabha* - Old age, Pregnancy, *Rajyakshma, Hridyadaurbalya* (Heart diseases – CCF, LVF, Hypotension etc.)[47]

Tankana - *Tankana*is the antidote of *Vatsanabha. Vatsanabha* has depressant action on heart even in low doses and *Tankana* is *Hridya* (regulates the heart beats). When *Vatsanabha* with equal quantity of *Tankana* triturated, *Vatsanabha Marana* is achieved, then it does not produces *Vikara* (adverse effects). [41]

Saindhava - added to correct *Aruchi Vidvibddhatam, Jadyam (Karmahinata), Antrakunjana, Anaha* as it possess properties like *Deepana, Pachana, Rochana, and Anulomana.* ***Lavanga***- acts as a *Deepana, Pachana*, and Anulomana Ruchya hence can be used in *Jirna Amavata* to treat – *Agnimandya, Aruchi, Chhardi* and *Adhmana* etc.

Hingu - *Hingu* acts as *Deepana, Pachana, Ruchya, Shoola-prashamana, Vatanulomana, Uttejaka, Vedanasthapana, Sanjnyastapana* and *Akeshepaghna* hence can be useful in *Jirna Amavata* to correct complications like *Agnimandya, Vidvibddhatam, Antrakunjana, Anaha, Kukshaukathi-natam, Shoola, and Aruchi.*

Jatiphala - *Jatiphala* acts as *Deepana, Rochana, Amashoshana, Vedanahara* and *Shothahara* hence can be used in *Amavata* to resolve *Vatashoola, Amashoola, Agnimandya, Aruchi* and *Shotha* etc.

Jeeraka - In *Jirna Amavata*to relieve *Aruchi, Adhmana, Agnimandya* and *Shoola Jeeraka* can be used as *Deepana, Pachana, Rochana* and *Shulaprashamana.*

Kumari–Used as *Bhavana Dravya* The main action of *Kumari* is *Kosthashodhana,Yakritottejana*, regulation of *PachakaPitta* and *Rasayana;* hence it can be used in the patients of *Jirna Amavata* to cure *Vidvibandha, Mandagni*, and *Dhatu Daurbalya*. It also possess the properly of binding therefore used as binding for the formation of *Vati*(Pills).

Dose and *Anupana*- The actual dose of *Vatagajendra-singh Rasa* is 3 *Ratti* (360 mg approx.) In the *Vyakhya* of *Ambikadatta Shastri* on *Bhaishajyaratnawali* the dose of *Vatagajendrasingh Rasa* is 2 *Ratti* (240mg approx.). If we take this as therapeutic dose then the quantity of *Vatsanabha* in single dose is become 16 mg, which is acceptable. *Anupana* is *Dugdha*, by *Anukta paribhasha Godugdha* should be used as *Anupana*. [48] *Godghrita* is also Antidote of *Vatsanabha* [49] and *Godugdha* used for *Vatsanabha Shodhana* so it justifies significance of *Anupana.*

Above discussion can be summarised as -

Principle action of ***Vatagajendrasingh Rasa***– *Sampraptibhanga* (see Figure: 1) by *Agnideepana, Amapachana* and Management of symptoms and complications.

Dosha *: Tridoshagna* especially *Kaphavatagna*

Dhatu *: Rasa, Rakta, Mamsa, Asthi,*

Upadhatu *: Snayu, Sandhi, Kandara,*

Mala – *Purisha, Sweda.*

Shariravayava *: Shleshmasthana – Urah, Parvani, Amashaya, Yakria, Grahani, Antra, Rasa.*

Strotas *: Rasavaha, Raktavaha, Mamsavaha, Asthivaha, Annavaha. Majjavaha*

Vyadhiavastha : Jeerna & Upadravayukta

Avastha *: Samavashta*

Agni *: Jatharagni, Rasadhatwagni*

Guna *: Katu, Tiktarasapryah, Ushna Virya.*

Karma *: Deepana, Pachana, Anulomana, Shoolahara, Vedanahara, Shothahara, Stambhahara, Sankochahara. Asthivikrutihara.*

Lakshana: Pain and swelling over joints of *Hastapada shirogulphatrikjanu Agnidaurbalya, Praseka, Aruchi, Gauravam, Utsahhani, Vairasya, Kukshaukathinatam, Shoola, Trishna, Chhardi, Bhrama, Vidvibddhatam, Jadyam*

(Karmahinata), Antrakunjana, Anaha, Sandhikunchana, Sankocha, Kanjatva.

Dose : 2 *Ratti* (240 mg approx.)

Aushadhisevankala*: Pratahkala*

Anupana: Lukewarm *Godugdha* (Cow milk)

Contraindications: Old age, Pregnancy, *Rajyakshma, Hridyadaurbalya*[50] (Heart diseases – CCF, LVF, Hypotension etc.)

CONCLUSION

The aim of the study was to evaluate mode of action of *Vatagajendrasingh Rasa* in the management of *Amavata*. This herbomineral preparation is effective in spectrum of Jirna (*Ativriddha*) Amavata associated with complications like *Sandhikunchana, Sankocha, Khanjatva*.

REFERENCES

1. ShuklaV, Tripathi R. Caraka Samhita of Agnivesha with Vaidya Manorama Vykhya, Sutrasthana. Chapter 9 Verse 3. Delhi: Chaukhamba Sanskrit Pratisthana; 2004. P.149.
2. Upadhyaya Y. N., editor. Madhava Nidana of Madhavakara, Amavata Nidana, 25. Varanasi: Chaukhambha Sanskrita Series; 1970. Sanskrit commentary by Sri Vijayarakshita and Sri Kanthadatta and Vidyotini Hindi commentary noted by Sri Sudarshana Shastri.
3. Arend WP. Physiology of cytokine pathways in rheumatoid arthritis. Arthritis Rheum. 2001;45:101-6.
4. Murthy K.R.S. Astanga Hrdyam of Vagbhata. Vol. II. Nidansthana Chapter 12, Verse 1. 9th ed. Varanasi: Chaukhambha Krishnadas Academy. 2013. p. 113.
5. Kasper and Co. Harrison's Principles of Internal Medicine. 301. 16th ed. New york: McGraw Hill Companies. p. 1968.
6. Basishta Gopal K, Singh Ram Harsha, Chandola Harimohan, Management of Rheumatoid Arthritis (Amavata) using symbiohealth healthcare system. 2012 oct-dec 33(4),466-474
7. MacGregor AJ, Bamber S, Carthy D, Vencovsky J, Mageed RA, Ollier WE, et al. Heterogeneity of disease phenotype in monozygotic twins concordant for rheumatoid arthritis. Br J Rheumatol. 1995;34:215–20. [PubMed]
8. Li LC, Carroll PR, Dahiya R. Epigenetic changes in prostate cancer: Implication for diagnosis and treatment. J Natl Cancer Inst. 2005;97:103–15. [PubMed]
9. Bird A. Perceptions of epigenetics. Nature. 2007; 447: 396–8. [PubMed]
10. Kelley W. N., Haris, Ruddy Shauns and Sledge C. B. Textbooks of Rheumatology, W. B. Saunders Company, Philadelphia (1989).
11. Gilman A. G., Goodman, L. S., Gilman Alfred. The Pharmacological Basis of Therapeutics Macmillan Publishing Co. Inc. USA, VIth Edn. (1980).
12. Raut A.A et al, Antirheumatic Formulations from Ayurveda**,** ASL Vol No. XI No.1 & 2, July & October 1991, Pages 66 – 69, [PubMed].
13. Shastri AD. Bhaishajyaratnavali of Govindadas Sen, Chapter 29 Amavata Chikitsa, Verse 83-89. 19th ed. Varanasi: Chaukhambha Prakashan; 2008. p. 620.
14. Shastri K. Rasatarangini of Sadanand Sharma, Chapter 6Murchhana Vignyaniya, Verse 20-21. 11th ed. Delhi: Motilal Banarasidas; 2004. p.651.
15. Kulkarni DA. Rasaratnasamuchhaya Vol. I of Vaghbhatacharya, Chapter 2Maharasani. Verse 2. New Delhi: Meharchand Lachhamandas Publications; 1998. p. 18.
16. Kulkarni DA. Rasaratnasamuchhaya Vol. I of Vaghbhatacharya, Chapter 5Lohani. Verse 136-139. New Delhi: Meharchand Lachhamandas Publications; 1998. p. 120.
17. Shivsharma A. Ayurved Prakash of ShreemadupadhyayaMadhav with Arthavidyodini-Suspastharthaprakashini Vyakhya of Shree Gularaj Mishra. Chapter 3 Verse 228. Varanasi: Chaukhamba Bharati Academy.2007. p. 393.
18. Kulkarni DA. Rasaratnasamuchhaya Vol. I of Vaghbhatacharya, Chapter 5 Lohani. Verse 46. New Delhi: Meharchand Lachhamandas Publications; 1998. p. 100.
19. Kulkarni DA. Rasaratnasamuchhaya Vol. I of Vaghbhatacharya, Chapter 5 Lohani. Verse 171. New Delhi: Meharchand Lachhamandas Publications; 1998. p. 126.
20. Shastri K. Rasatarangini of Sadanand Sharma, Chapter 13 Ksharatrika Vignyaniya, Verse 79-81. 11th ed. Delhi: Motilal Banarasidas; 2004. p.318.
21. Shastri K. Rasatarangini of Sadanand Sharma, Chapter 24 Vishopvishadi Vignyaniya, Verse 26-60. 11th ed. Delhi: Motilal Banarasidas; 2004. p.653-655.
22. Shastri K. Rasatarangini of Sadanand Sharma, Chapter 14 Ksharavisheshadi Vignyaniya, Verse 119-120. 11th ed. Delhi: Motilal Banarasidas; 2004. p.347.
23. Chunekar K.C. Bhavaprakasa Nighantu of Shri Bhavamishra, Karpuradi Varga, Verse 58-59.Varanasi: Chaukhamba Bharati Acadamy; 2002. p. 219.
24. Chunekar K.C. Bhavaprakasa Nighantu of Shri Bhavamishra, Haritakyadi Varga, Verse 100.Varanasi: Chaukhamba Bharati Acadamy; 2002. p. 40.
25. Chunekar K.C. Bhavaprakasa Nighantu of Shri Bhavamishra, Karpuradi Varga, Verse 54-55. Varanasi: Chaukhamba Bharati Acadamy; 2002. p. 216.
26. Chunekar K.C. Bhavaprakasa Nighantu of Shri Bhavamishra, Karpuradi Varga, Verse 66-67. Varanasi: Chaukhamba Bharati Acadamy; 2002. p. 226.
27. Chunekar K.C. Bhavaprakasa Nighantu of Shri Bhavamishra, Karpuradi Varga, Verse 65. Varanasi: Chaukhamba Bharati Acadamy; 2002. p. 224.

28. Chunekar K.C. Bhavaprakasa Nighantu of Shri Bhavamishra, Karpuradi Varga, Verse 63. Varanasi: Chaukhamba Bharati Acadamy; 2002. p. 223.
29. Chunekar K.C. Bhavaprakasa Nighantu of Shri Bhavamishra, Haritakyadi Varga, Verse 43. Varanasi: Chaukhamba Bharati Acadamy; 2002. p. 13.
30. Chunekar K.C. Bhavaprakasa Nighantu of Shri Bhavamishra, Haritakyadi Varga, Verse 81. Varanasi: Chaukhamba Bharati Acadamy; 2002. p. 31.
31. Chunekar K.C. Bhavaprakasa Nighantu of Shri Bhavamishra, Guduchyadi Varga, Verse 230. Varanasi: Chaukhamba Bharati Acadamy; 2002. p. 419.
32. Puranik GV. Ayurvediya Aushadhikarana, Mumbai: Rashtravaibhav Press; 1954 2(2). 109.
33. Shah NC. Bharat Bhaishajya Ratnakara, Gujrat: Unjha Pharmacy Publications; 1990. 1,280.
34. Pramanik TK. A New Method for Preparation of Kajjali. Ancient Science of life. 1996; 15:256-258.
35. Shastri K. Rasatarangini of Sadanand Sharma, Chapter 10 Abhraka Vignyaniya, Verse 77. 11th ed. Delhi: Motilal Banarasidas; 2004. p.235.
36. Tamhankar YL et al. Immunomodulatory Effect of Shataputi Abhrak Bhasma- Ayurveda's Rasayan. International Journal of Ayurveda and Pharma Research. 2015;3 (11):22-27
37. Shastri K. Rasatarangini of Sadanand Sharma, Chapter 17 Tamra Vignyaniya, Verse 52. 11th ed. Delhi: Motilal Banarasidas; 2004. p.422.
38. Shastri K. Rasatarangini of Sadanand Sharma, Chapter 20 Lauhadi Vignyaniya,. 11th ed. Delhi: Motilal Banarasidas; 2004. p.510-511.
39. Shivsharma A. Ayurved Prakash of Shreemadupadhyaya Madhav with Arthavidyodini-Suspastharthaprakashini Vyakhya of Shree Gularaj Mishra. Chapter 3 Verse 226-227. Varanasi: Chaukhamba Bharati Academy.2007. p. 393.
40. Shivsharma A. Ayurved Prakash of Shreemadu padhyaya Madhav with Arthavidyodini-Suspastharthaprakashini Vyakhya of Shree Gularaj Mishra. Chapter 3 Verse 228. Varanasi: Chaukhamba Bharati Academy.2007. p. 393.
41. Shastri K. Rasatarangini of Sadanand Sharma, Chapter 19 Sisakadi Vignyaniya, Verse 46. 11th ed. Delhi: Motilal Banarasidas; 2004. p.466.
42. Shastri K. Rasatarangini of Sadanand Sharma, Chapter 24 Vishopavishadi Vignyaniya, Verse 131. 11th ed. Delhi: Motilal Banarasidas; 2004. p.671.
43. Shastri AD. Bhaishajyaratnavali of Govindadas Sen, Chapter 29 Amavata Chikitsa, 19th ed. Varanasi: Chaukhambha Prakashan; 2008. p. 620.
44. Tripathi I. Yogratnakara with Vaidyaprabha Hindi Commentary. Part I. Jwarachikitsa, Verse 16-17. Varanasi: Chaukhamba Krishnadas Academy; 2007. p. 190.
45. Shastri AD. Bhaishajyaratnavali of Govindadas Sen, Chapter 5 Jwara Chikitsa Verse 483, 19th ed. Varanasi: Chaukhambha Prakashan; 2008. p. 120.
46. Sharma R.K., Dash B. Caraka Samhita of Agnivesha, Vol. 1. Sutrasthana. Chapter 1 Dirghanjivitiya, Verse 126, 6th ed. Varanasi: Chaukhamba Sanskrit Series Office, 1999. p.60.
47. Shastri K. Rasatarangini of Sadanand Sharma, Chapter 24 Vishopavishadi Vignyaniya, Verse 61-63. 11th ed. Delhi: Motilal Banarasidas; 2004. p.659.
48. Shivsharma A. Ayurved Prakash of Shreemadupadhyaya Madhav with Arthavidyodini-Suspastharthaprakashini Vyakhya of Shree Gularaj Mishra. Chapter 6 Verse 60. Varanasi: Chaukhamba Bharati Academy.2007. p. 493.
49. Tripathi B. Sharangadhara Samhita of Sharangadhara with Deepaka Hindi Vyakhya, Purvakhanda, Chapter 1. 3rd ed. Varanasi: Chaukhamba Surbharati Prakashan; 1998. P. 17.
50. Sharma P. Dravyaguna Vignyan, Second Part Chapter 2 Chakshushyadi Varga. Varanasi: Chaukhamba Bharati Acadamy; 2009. P. 110.

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