

## ROLE OF YOGA IN MANAGEMENT OF AMAVATA W.S.R. RHEUMATOID ARTHRITIS

Nisha<sup>1</sup>, Jaya Saklani Kala<sup>2</sup>

<sup>1</sup>2<sup>nd</sup> Year MD Scholar, Kayachikitsa Dept.;

<sup>2</sup>Associate Professor P.G. Dept. of Kayachikitsa, Rishikul Campus Haridwar, Uttarkhand, India

Email: [nishadeswal01@gmail.com](mailto:nishadeswal01@gmail.com)

### ABSTRACT

Epidemiological data provide evidence of a steady rise in autoimmune disease throughout Westernized societies over the last decades. Researchers have identified 80- 100 different autoimmune diseases and suspect at least 40 additional diseases of having an autoimmune basis. Rheumatoid Arthritis is one of the autoimmune diseases. It is a chronic inflammatory, destructive and deforming symmetrical polyarthritis associated with systemic involvement. *Amavata* clinically resemble with Rheumatoid arthritis. In allopathy treatment are advised NSAIDS, steroids and DMARD, which provides the symptomatic relief, but those has more side effect. Regular *Yoga* practice can increase muscle strength and endurance, proprioception and balance, with emphasis on movement through a full range of motion to increase flexibility and mobility. Additional beneficial elements of *Yoga* include breathing, relaxation, body awareness and meditation, which can reduce stress and anxiety and promote a sense of calmness, general well-being and improved quality of life. *Yoga* also encourages a meditative focus, increased body awareness and mindfulness; some evidence suggests *Yoga* may help decrease inflammatory mediators including C-reactive protein and interleukin-6.

**Keywords:** Autoimmune disease, *Yoga*, *Amavata*, Rheumatoid Arthritis, inflammation.

### INTRODUCTION

In today's hectic lifestyle the diet as well as the regimes of human beings has changed a lot. This leads to the sluggish function of *Agni*. Low digestive fire produces *Ama* or toxins in the digestive tract, which then circulate the entire body due to propulsive effect of *vata*. When *Ama* and *Vata* simultaneously get vitiated and enters the *Trika* and *Sandhi* finally leading to *Stabdhat* (stiffness) of the body, the condition is known as *Amavata*.<sup>1</sup> Acharaya *Madhavkara* has clearly stated the

*Roopas* (sign & symptoms) of *Amavata* in *Madhav Nidana*. The *Pratyatma Laksana* (Main symptoms) are *Gatrastabdhat*, *Sandhishula*, *Sandhishoth*, *Sparshasahyata* and *Samanya Laksana* (General symptoms) are *Angmarda*, *Aruchi*, *Trishna*, *Alashya*, *Gaurav*, *Jvara*, *Apaka*, *Angasunnata*.

Rheumatoid arthritis (RA) is a long-term autoimmune disorder that primarily affects joints. It typically results in warm, swollen, and painful joints. Pain and stiffness

often worsen following rest. Most commonly, the wrist and hands are involved, with the same joints typically involved on both sides of the body. The disease may also affect other parts of the body. This may result in a low red blood cell count, increase CRP level, raised ESR, inflammation around lungs, and inflammation around the hear. Fever and low energy may also be present.

**Aim and Objective:** To study aetiopathogenesis of *Amavata* and the effect of yoga on inflammation, joint movement and stress.

**Material and method-**For this study literary materials which includes the reference of *Amavata* and yoga has been collected through the ayurvedic text and previous research article

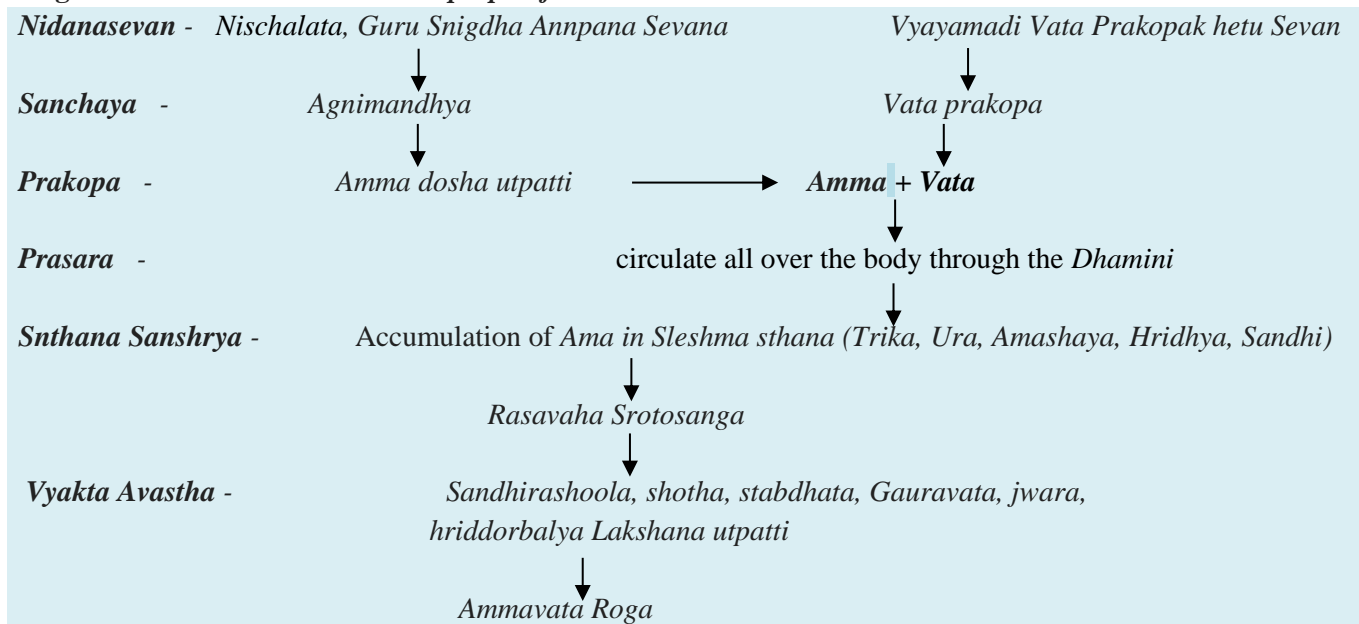
**Nidana of Amavata<sup>2</sup>**

- *Viruddhahara* (Antagonistic diet)
- *Viruddha cheshta* (Erroneous habit)

- *Mandagni* (Diminished Agni)
- *Nischalata* (Sedentary habit)
- Exertion immediately after taking *Snigdha Ahara* are the main etiological factor *Amavata*. These factors cause the vitiation of *Vata* and formation of *Ama*, which together leads to *Amavata*.

**Samprapti of Amavata (Pathogenesis)-**When a person of sedentary habits with hypo functioning digestive mechanism indulge in incompatible diet and regimen (*Virrudha aahara – vihar*) or does physical exercise after taking fatty food, the *Ama* is formed and propelled by *Vayu* reaches the site of *Sleshma*. Where this *Ama-rasa*, get much vitiated by *Vata*, *Pitta*, and *Kapha* & then it is circulated (all over the body) through the vessels (*Dhamini*). It then takes on accumulates in the small channels & joint pores. It renders the patients weak and produces a feeling of heaviness & stiffness in whole body and produces *Amavata*.

**Diagrammatic Presentation of Samprapti of Amavata<sup>3</sup>**



In allopathy treatment are advised NSAIDS, steroids and DMARD, which provides the symptomatic relief, but those has more side effect. The *Ayurvedic* treatment not only devoid such type of ill effect, but also provides a better way by treating *Agni* and *Ama* at its roots. The principles of management of *Amavata* are *langhana*, *Swedana*, drugs having *tikta*, *katu rasa*, *deepan*

*pachana* as *Shamana chikitsa*. Along with this *chikitsa* Yoga is also a popular activity which may be well suited for some individuals with certain rheumatic disorders.

**Yoga** - RA has also an impact on our National economy. As it is not only affecting the older generation, but the young generations are also getting highly

affected by this disease. It is equally affecting the patients physically as well as mentally and sometimes forcing them to become invalid. *Yoga* promotes a holistic living—a drugless and disease-free living uniting the physical, mental and spiritual aspect of our life into one platform. It is helpful in the prevention and cure of different chronic disease. It's also been shown to boost energy, build positive feelings, and ease anxiety. For people who have an ongoing illness, particularly one that's painful and unpredictable, the mood-boosting impact of *Yoga* is a great bonus. "It really helps with increased stress that goes together with living with a chronic disease, If you have rheumatoid arthritis (RA), you might want to try incorporating *Yoga* into your exercise routine. It's easy on the joints, and can also help manage the stress associated with living with a chronic and often painful condition like RA.

Based on the available data, *Yoga* seems possibly effective in reducing pain and inflammation from RA, and some research has indicated it may also help improve psychosocial symptoms as well.

**Yoga Poses for Amavata<sup>4</sup>**— *Nischalata* and *Mandagni* are the, main causative factor of *Amavata*, so we must select that yoga poses which improves the Agni of patients and strengthens the muscles and increase joint flexibility and mobility. Along with yoga poses we can include prayer in our yoga poses that will relaxes our mind and soul.

- Following are some yoga poses that are useful in *Amavata*

**1. Bhujangasana (Cobra Pose)** - A member of the *Surya Namaskar* family and a mild backbend, *Bhujangasana* (Cobra Pose) offers a wealth of benefits to the body, mind, and soul.

#### Benefits : Anxiety Relief

- **Good Digestion:** The Cobra Pose is done in a prone position that gives a gentle massage to the digestive tract and stretching of the frontal plane encourages optimal working abdominal organs and compressing of the lower back invigorates the kidneys, resulting in an enhanced gastrointestinal functioning.
- **Strength and Flexibility** –It strengthens the spinal column and the pose tones the legs, shoulders,

gluteal muscles providing you a robust body and perky bottom.

- **Awakens the kundalini-** The cobra pose awakens the *Kundalini* -the divine cosmic energy that fosters self- realization, increased in creativity, internal peace and spiritual enlightenment.

**2. Chakrasana (Wheel Pose)-** It is a back-bending yoga posture of *Ashtanga Yoga* style that marvellously comforts the body, mind, and soul of a *Yoga* practitioner

**Soothes the Nerves:** The backward stance of a wheel pose directs the blood flow from the lower extremities to the brain that triggers the parasympathetic nervous system, reduces stress, and soothes the nerves.

**Strengthens the Wrists:** Wheel pose is an effective form of exercise that builds strength, grip in the wrists, and improves its health. Strong wrists allow you to perform yoga postures with greater stability and ease.

- Strengthens the Hips and Hamstrings.
- Energizes the body
- Strengths the vertebrae.

**3. Paschimottanasana** – It happens to be a Sanskrit word which is also referred to as the ‘Seated Forward Bend Pose’ in English. This classical Hatha Yoga pose showers a practitioner with loads of benefits and is one of the most effective poses for an entire body stretch.

#### Benefits

- Calms the brain and helps relieve stress and mild depression
- Stretches the spine, shoulders, hamstrings
- Improves digestion.
- Traditional texts say that *Paschimottanasana* increases appetite, reduces obesity, and cures diseases.

**4. Bhadrasana (Gracious Pose)**

#### Benefits

1. Develops flexibility of legs
2. Improves digestion
3. Strengthens backbone, thighs, hips and buttocks
4. Activates *muladhara* or root chakra
5. improves focus and concentration
6. Combats fatigue
7. Great posture for meditation as it calms the mind and reduces mental activity.

**5. Ardha Matsyendrasana-** *Ardha Matsyendrasana* also known as the Half Lord of The Fish pose, Half Spinal Twist Pose, is derived from the Sanskrit term *ardha* (half), *matsya* (fish), *indra* (King or Lord). *Ardha Matsyendrasana* is one of the best twisting postures.

#### Benefits

1. Increases the elasticity of the spine, tones the spinal nerves and improves the functioning of the spinal cord.
2. Relieves back pain and stiffness from between the vertebrae.
3. Useful for slipped disc.
4. Massages the abdominal organs and increases the digestive juices making it useful for loss of appetite and constipation.
5. Regulates the secretion of bile and adrenaline.
6. Relieves tension that may have built up in the back from forward and back bending asanas.
7. Loosens the hip joints, relieving stiffness.
8. Releases tension in the arms, shoulders, upper back and neck.

#### 6. Ardha Shalabhasana or The Half-Locust Pose

##### Benefits

1. *Shalabhasana* strengthens the lower back muscles
2. It gives flexibility to the back muscles and spine.
3. It can strengthen the shoulders and neck muscles.

#### 7. Savasana

1. First, get rid of insomnia, stress, fatigue, anxiety, anger or any other negative trait you want to eliminate from your personality. This asana also helps you get out of depression.
2. Breathing stimulates the parasympathetic nervous system i.e. your resting and digestive response.
3. Health benefits of Corpse Pose will relax your body muscles.
4. Helpful to enter an intense meditative state of mind. It also repairs your tissues, which further helps your body function properly.

#### How might yoga work<sup>5</sup>

**Endocrine system** - The strongest evidence in both quality and quantity suggests yoga has a positive impact on hormone regulation. Salivary levels of cortisol have been measured and notably decreased in

numerous reviews and trials. Lowering cortisol is associated with decreasing perceived stress, decreasing anxiety, increasing feelings of well-being and improving pain management. Higher levels of melatonin to improve immunity and sleep quality are other potential effects of yoga practice.

**Nervous system** - An explanatory framework that attributes benefits of yoga through direct influence on the sympathetic and parasympathetic activity in the autonomic nervous system is common. physical movement in asanas reduce sympathetic activation, increase levels of gamma-aminobutyric acid (GABA), regulate the hypothalamic-pituitary adrenal (HPA) axis to improve outcomes in mood disorders, stress, well-being and provides an anxiolytic effect.

**Inflammation** - Yoga's effect on decreasing inflammatory markers is a recent addition to research. With a focus on pain management and effective treatment of depression, the partial role of reducing proinflammatory cytokines such as IL-6, interleukin-2, C-reactive protein is attributed to yoga's capacity to stimulate the vagus nerve. The vagus nerve in turn decreases heart rate, blood pressure or both to improve responses to stress and which may have further effects on decreasing obesity and improving immunity.

**Antioxidant** - Oxidative stress results from an imbalance in the prooxidant-antioxidant equilibrium and is associated with several diseases. Numerous findings identify an increase in levels of total antioxidant status (TAS) and other naturally occurring antioxidants in human cells such as glutathione (GSH) and plasma vitamin E following yoga intervention. Preventative and treatment effects for cardiovascular disease, cancer, arthritis, diabetes and Alzheimer's have also been indicated in these research findings.

**Psychology and cognition** - In two articles, increased feelings of satisfaction, self-confidence and self-control are linked to decreased perceived stress and increased well-being following yoga practice. Another author states that "if yoga therapy offers an awareness of physical.

**Nerve conduction** - For pain reduction, improved nerve conduction through 'Gate theory stimulation' and enhanced deep sleep to decrease 'substance P' as

indicated through massage therapy may also demonstrate key benefits of yoga therapy, though empirical evidence is speculative

**Precautions during Yoga practices<sup>6</sup>** – For people with moderate to severe RA activities to be avoided included-

1. High intensity exercise.
2. Prolonged weight-bearing exercise
3. Prolonged immobility in seated or lying position
4. Stretching past the comfortable endpoint of ROM (range of motion)
5. Emotionally draining social interactions and employment that generate high level of stress.
6. In movement therapies, including asana practice, fixed increases in the number of repetition and or in the length of time for which postures are held should be avoided. Both the number of repetition and length of time for which position are held should be carefully monitored and adjusted to avoid aggravating inflammation and pain.

## DISCUSSION

Emotional and physical stressor activate immune and endocrine pathways that can enhance proinflammatory cytokines production, several studies have provided supportive data that regular yoga practice may reduce inflammation<sup>7</sup>. Stretching and rotation exercise may improve joint mobility thereby reducing joint stiffness. Asanas improves the muscle tone, muscle strength and functioning of different organs of body. Pranayama improves the function of respiratory and cardiovascular system of body. Prayer helps to improve the spiritual aspect of life and increases the mental strength. If you have rheumatoid arthritis (RA), you might want to try incorporating *Yoga* into your exercise routine. It's easy on the joints, and can also help manage the stress associated with living with a chronic and often painful condition like RA.

## CONCLUSION

Physical exercise increases the joint mobility and diminishes the joint stiffness. Relaxation helps to decrease the anxiety, mental stress and depression. A program of *Yoga* poses, breathing, and relaxation can

make a big difference in joint tenderness and swelling, according to the Arthritis Foundation. And the better you feel, the better you'll be able to handle yours. Intervened *Yogic* practice may good in management of RA and hence *Yogic* intervention given by *Yoga* expert to RA patient along with their medications will be a good complement for everlasting cure.

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