

The role of bhallataka (*Semecarpus anacardium*) in the management of rheumatoid arthritis for clinical study

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Abstract

The present study deals with Rheumatoid Arthritis, a chronic inflammatory disorders which can affect human joints. It is observed that, the condition can also damage wide variety of body systems including the skin, eyes, cardiovascular and respiratory systems. An Autoimmune disorder, Rheumatoid arthritis occurs when immune system mistakenly attacks on entire body. According to Ayurveda, Amavat is a complex disease; Rheumatoid Arthritis is a part of Aamavat. Unlike the wear and tear damage of Rheumatoid arthritis affects the lining of joints, causing a painful swelling that can eventually result in bone erosion and joint deformity. Bhallataka (*Semecarpus anacardium*) belongs to Anacardiaceae family. Dried Seeds Powder of Bhallataka (*Semecarpus anacardium*) useful in relief of joint pain and stiffness. In the present study total 60 patients have been studied for clinical trial of Rheumatoid arthritis, treated with Dried Seeds Powder of Bhallataka (*Semecarpus anacardium*) Highly relief was found in the symptoms of joint pain and stiffness. Therefore it is concluded that Bhallataka (*Semecarpus anacardium*) is significantly useful in Rheumatoid arthritis due to its VEDANASTHAPANA, SOTHAHARA, and VATAHARA effect.

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INTRODUCTION

Rheumatoid arthritis is a chronic inflammatory disorder that can affect more than just human joints¹. Rheumatoid arthritis is An Autoimmune disorder, Rheumatoid arthritis occurs when your immune system mistakenly attacks human body's tissues.

Aamavat: Explorative description is Available in Ayurvedic Texts- Madhv Nidan², Charka Samhita³, Bhavprakash⁴, and Shrusht Samhita⁵, Sidhant Nidan⁶ etc. regarding Aamvat which can be correlated with Rheumatoid arthritis⁷. It is one of the Rheumatic disorder of the connective tissues, joint and bones in which pain

and stiffness affecting some part of the musculoskeletal system. Aamvat is one of the diseases being capable of producing severe crippling deformities and fictional disability.

Bhallataka (*Semecarpus anacardium*): Bhallataka (*Semecarpus anacardium*) is a one of the important and powerful fast acting Ayurvedic herbs⁸. It is used extensively in various immune suppress diseases, but very useful in Aamvat (Rheumatoid arthritis). Its botanical name is (*Semecarpus anacardium*). It belongs to (*Anacardaceae*) family⁹. It has been used all over India since centuries. It was held in high esteem by ancient sages of Ayurveda. It is a plant well known for its great medicinal value in Ayurveda and is effective in wide range of diseases. So It is known as half physician for its ability to cure almost half the known disorders¹⁰. The fruit and nut extract shows various activity like antiatherogenic, anti-inflammatory, antioxidant, antimicrobial, antireproductive, CNS stimulant, hypoglycemic, anticarcinogenic and antiarthritic¹¹. Bhallataka (*Semecarpus anacardium*) has been reported to be a potential plant for the cure of diseases such as Diabetes, Myocardial Infarction, Asthma, Rheumatoid arthritis, Piles, Cancer etc.

CAUSES

Rheumatoid arthritis: Rheumatoid arthritis can affect people of all ages. But the cause of Rheumatoid arthritis is not known.

Amvata¹²:

- **Viruddha ahara:** Mutually incompatible foods
- **Viruddha chesta:** Unwholesome lifestyle practices
- **Mandagni:** Having low metabolism and sluggish digestion for a longer period
- **Nischala:** Sedentary life activities
- **Vyayam:** After Snigdha bhojana

Consuming, oily and high caloric food and immediately getting indulged in exercises

SYMPTOMS¹³:

- Joint Stiffness that is usually worse in the mornings and after inactivity.
- Joint Pain, Joint Redness, Joint Deformity and Joint Tenderness in the joints of the Feet, Hands, and Knees.
- Loss of joint function and loss of range of motion.
- Rheumatoid nodules & Polyarthritis
- Fatigue, Fever and Weight Loss

In European country this disease is commonest cause of physical impairment in the community.

Amavata Samprapti: Due to the above said causes plenty of Ama is formed in the body. The Vata also gets vitiated and pushes the Ama into different parts of the body through circulation. Mainly Vayu pushes the Ama into the Shleshma Sthana (Sites of Kapha), mainly the Bony Joints and Muscles. The Ama on further vitiation by Vata and Kapha enters the circulation and later gets associated with morbid Pitta. This gives the combination a corrosive nature and they tend to destroy any tissue or organ with which they come into contact. The vitiated Ama and Vata get lodged in various Joints, mainly in the Low Back, Pelvis and Hips and causes Stiffness of the body along with Severe Pain¹⁴.

AMIS AND OBJECTIVES

- To assess the Anti-Rheumatoid action of Bhallataka (*Semecarpus anacardium*).
- To study & confirm the effects of Bhallataka (*Semecarpus anacardium*) to the decrease in positivity of RA factor.
- To assess the Anti-Inflammatory and Pain relief properties of Bhallataka (*Semecarpus anacardium*).

- To assess the VEDANASTHAPANA and SOTHAHARA effect of Bhallataka (*Semecarpus anacardium*)

Bhallataka (*Semecarpus anacardium*) Plant description¹⁵:

It is a medium sized to large tree, 15-25m in height. It is found in the outer Himalayas, and hotter region. Places such as Bihar, West Bengal, Orissa, Karnataka, Kokan, Kanara, forest of Tamilnadu, Madhya Pradesh, Maharashtra and Gujarat (Ahwa-Dang) etc. Leaves are simple, alternate, obviate oblong, rounded at the apex, Coriaceous, Glabrous above and more or less pubescent beneath, main nerves 15-25pairs. Flowers are greenish white fascicled in pubescent pedicles. Fruits are obliquely ovoid or oblong drupes and 2-5cm long.

Aurvedic Properties of Bhallataka (*Semecarpus anacardium*)¹⁶:

Rasa (taste): Katu (Pungent), Tikta (Bitter) & Kashava (Astringent),

Guna (qualities): Laghu (Light to digest), Teekshna (Piercing), Snigda (Unctous) And Ushna (Hot).

Seeds are effective in treatment of neuritis, Rheumatic Pain & Gout.

it is a Nervine Tonic.

Bhallataka Sodhana (*Semecarpus Anacardium*): Bhallataka (*Semecarpus anacardium*) ripe seeds are taken, and put into water. Only those which sink are used for purification and rest is discarded. The seed is cut into two and kept immersed in Dry Brick Powder for some time. During this time, the Dry Brick Powder absorbs all the strong pungent oil of Bhallataka (*Semecarpus anacardium*) reducing its pungency and making it usable for medicinal purpose¹⁷.

Formula and Dosage: Purified Bhallataka (*Semecarpus anacardium*) Seeds Powder (Churna) Orally with Ghee.

Dosage:

1 to 2 gm two times a day in **acute conditions** with coconut water and ghee. (in age 15 Yrs to 24 Yrs).

2 to 5 gm two times a day in **acute conditions** with coconut water and ghee. (in age 25 Yrs to 60 Yrs).

1 to 2 gm three times a day in **chronic conditions** (associate symptoms) with coconut water and ghee. (in age 15 Yrs to 24 Yrs).

2 to 5 gm three times a day in **chronic conditions** (associate symptoms) with coconut water and ghee. (in age 25 Yrs to 60 Yrs).

Side Effects:

- Skin Irritation
- Burning Pain and blisters formation in the mouth.
- Burning Misturation.

- Severe Poisoning results in Vomiting, Abdominal Pain, Diarrhoea, Hypotension, Tachycardia, and Coma.

Antidotes

- Coconut Oil
- Ral Ointment
- Ghee

Pathya: After digestion, the person should take the Rice of Shali or Shashtika along with Milk and Ghee. After administration for a few days, the person should take Milk only twice per day. Milk acts as coolant and will take away Hot effects of Bhallataka (*Semecarpus anacardium*)

MATERIAL AND METHODS:

The study was carried out at, Niramay Ayurvedic Hospital, 1/934-Pratik House, Adgara street,, Athugar road, Behind central bank, Nanpura, Surat, Gujarat 395001 (India). Total 60 Patient selected. The Patients were given Purified Bhallataka (*Semecarpus anacardium*) Seeds Powder (Churna) Orally with Ghee. The study was undertaken in duration of January 2016 to December 2017. Out of 60 Patient.

OBSERVATION AND RESULTS

- Out of 60 Patients approx 66.6% were Female and approx 33.4% Male.
- Out of 60 Patients approx 73.33% were Hindu and approx 26.6% others.
- Out of 60 Patients approx 70% were in between Age Group of 30 to 50 and approx 30% in between the other age group.
- Out of 60 Patients approx 50% within RA strongly positive, 36% with RA Moderately positive and 14% with RA Negative.

Author's Trial on Rheumatoid Arthritis Patient in Niramay Ayurvedic Hospital:

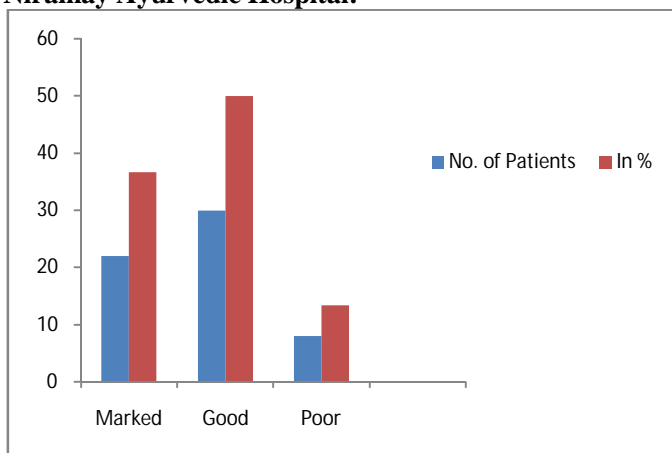


Figure 1:

Table 1:

Sr. No.	Effect	No. of Patients	In %
1	Marked	22	36.66
2	Good	30	50
3	Poor	8	13.33

Due to property of Bhallataka (*Semecarpus anacardium*) it works as Sothnasak, Vednasamak and Destroies the Pathogenesis of Aamvata. So it is very useful to Treating Aamvata disease. And also with Analgesic, Vatsamana and Aampachak, Attitude by Ushna Virya Properties it works and Reduction in Joint Pain. In view of the importance of Bhallataka (*Semecarpus anacardium*) Which Provides Health Benefits upto Approx 72% of the relief in Rheumatoid arthritis disease.

CONCLUSION

- Based on finding of present study it can be concluded that clinical efficacy of the Bhallataka (*Semecarpus anacardium*) significant Relieving Joint Pain, Muscular Pain, Stiffness and better improvement in most of the symptoms.
- Also Bhallataka (*Semecarpus anacardium*) is extremely effective in the most prominent symptoms of the Patients. The Bhallataka (*Semecarpus anacardium*) is useful in Reducing Pain, Swelling, Tenderness and Stiffness.
- The trial drug Bhallataka (*Semecarpus anacardium*) Seeds Powder in this is study seems to be very good for VEDNASAMAKA and SOTHHAR effect.
- Therefore it is conclude that Bhallataka (*Semecarpus anacardium*) is significantly useful due to its Anti-Inflammatory and Pain Relief properties.
- Apart from that this paper throws some focus on effective use and benefit of Bhallataka (*Semecarpus anacardium*) medicinal plants for their medicinal value to cure chronic and acute Rheumatoid arthritis and Immune Suppressive disease.
- Various preliminary & preclinical studies have been performed with the various extracts of this plant but its proper utilization as a Phyto-Pharmaceutical has not been fully explored.
- It is a poisonous plant and has to be used only after careful detoxification process. Hence it can be concluded that the plant can be utilized as one of the source of bioactive constituents to treat Rheumatoid arthritis and also various Immune Supress diseases.

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