

## Pharmacological and Therapeutic Efficacy of Castor Oil

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### ABSTRACT:

**Background:** The most commonly used part of *Ricinus communis* is seeds known as Castor Oil. In the Traditional system of Indian Medicine, it is known as Gandharvahasta or Castor Oil, and the abundance of natural compounds in castor oil possess healing health benefits that are widely used in Traditional system of Indian Medicine.

**Objectives:** A comprehensive review has been made through the Classical Text of Indian System of medicine. Views of their critics as well as contemporaries were also taken into consideration for compilation of Castor Oil formulations.

**Material & Methods:** The journals, modern books and internet were also screened during the review attempt on Castor Oil and their formulations. *Ricinus communis* is found throughout India and has been used medicinally for centuries.

**Result:** Among the thousands of medicinal plants, *Ricinus communis* or castor plant is a widely used and powerful medicinal plant. More scientifically based research on its property and various modes of administration must be conducted. A systematic review of Castor Oil provides details on its use, dosage, adverse reactions, and so on. In the current review, A thorough examination of the evidence-based activity of the formulations mentioned in Bhaishajya Ratnavali reveals that these formulations can be used effectively in all diseased conditions.

**Conclusion:** This knowledge may be useful in developing safe and dependable therapeutic conditions for all types of diseases, which are currently unavailable on the herbal drug market.

**KEYWORDS:** Castor Oil, Oil, Pharmacological, Seed, *Ricinus communis*

scientific traditional medicinal systems, and it is revered by people who know the Vedas<sup>[1]</sup>. Classical knowledge of the healing properties of plants and formulations utilised in the Traditional system of Indian Medicine treatments is based on centuries of clinical observations<sup>[2]</sup>. Ancient scriptures such as the Vedas, Samhitas, and Puranas provide information regarding their qualities and therapeutic uses. Nighantus compilations from subsequent periods also include a massive amount of information.

As a result of the current worldwide trend toward the use of plant-derived natural remedies, there is an urgent need for current and accurate information about the qualities and uses of medicinal plant products, as well as their efficacy, safety, and quality. Traditional systems of Indian Medicine physicians have used *Ricinus Communis*, a traditional herbal drug botanically identified as *Ricinus communis* Linn, to treat a variety of disease conditions.<sup>[3]</sup>

The most commonly used part of *Ricinus Communis* is seeds known as Castor Oil. In Traditional system of Indian Medicine, it is known as Gandharvahasta or Castor Oil, and the abundance of natural compounds in castor oil possess healing health benefits that are widely used in Traditional system of Indian Medicine medicine<sup>[4]</sup>.

Traditional systems of Indian Medicine practitioners commonly use castor oil (*Ricinus Communis Talia*) for purgation and the treatment of Vata disorders<sup>[5]</sup>. However, when considering its broad action and benefits, it can be used wisely to treat a variety of conditions and disorders. As a result, this Castor oil review includes a wide range of classical references and therapeutic efficacy of castor oil. Many times castor oil is given along with decoction, milk, etc. in oral administration. The oil is also used externally in the treatment of various diseases. Castor oil is a true marvel of

### I. INTRODUCTION

Traditional system of Indian Medicine is one of the greatest blessings given to humanity by ancient Indian sages. It is one of India's oldest

nature due to its numerous benefits<sup>[6]</sup>. The Traditional system of Indian Medicine System was meticulously searched for information on Castor Oil and its unidentified Traditional system of Indian Medicine formulations.

Castor oil (*Ricinus Communis Taila*) is employed not only as an ingredient or as a single medication compound, but it is also a very good vehicle.

In this article, The composition of Castor oil (*Ricinus Communis Talia*) formulation and its dose, Vehicle and Therapeutic effect, and their various references were collected from various Traditional system of Indian Medicine text and research articles as well as the phytochemical constituents and its biological activities.

#### Materials:

A comprehensive review has been made through the Classical Text of Traditional System of Indian Medicine. Views of their critics as well as contemporaries were also taken into consideration for compilation of Castor Oil formulations. The journals, modern books and internet were also screened during the review attempt on *Ricinus Communis Talia* and their formulations.

#### Ricinus Communis:

In their exposition, Traditional system of Indian Medicine books meticulously documented *Ricinus Communis*'s varieties, synonyms, parts used, pharmacological features, activities, and indications. Its use as an ingredient in compound preparations is described in both *TreAnnona squamosa* Linn. es and compendia of Traditional system of Indian Medicine.

*Ricinus Communis* possesses Sweet, Pungent, Astringent Taste, Sweet After digestion effect, and Hot Potency, as well as the Heavy, Unctuous, piercing, and minute properties. It balances the Humors of body constitution.

#### Varieties of Ricinus Communis<sup>[7],[8]</sup>

In the *TreAnnona squamosa* Linn. es, two varieties of *Ricinus Communis* are described. White *Ricinus Communis* and Red *Ricinus Communis* are two different varieties of *Ricinus Communis*.

#### Synonyms

##### I. The White Variety *Ricinus Communis*<sup>[9]</sup>

##### Synonyms:

Amanda, Citra, Gandharvahasthaka, Vardhamana, Vyadambaka, Rubuka, Vatari Panchagnula And Dirgha Danda.

##### II. The Red Variety *Ricinus Communis*

##### Synonyms:

Uttanapatraka<sup>[10]</sup>, Vyaghrapuccha vatari<sup>[11]</sup>, Urubuka, Rubu<sup>[12]</sup>, Cancu

##### Castor Oil:

In Traditional system of Indian Medicine, Castor Oil) is often used for purgation and the treatment of Humours of body constitution . However, when considering its broad action and benefits, it can be used cautiously in a variety of circumstances and the treatment of numerous diseases. As a result, this review on Castor oil references gathers from Text of Traditional System of Indian Medicine (*Bhaishajya Ratnavali*) is used in a variety of ailments and techniques (mode of administration), as well as formulation (with decoction, milk, etc. or external application) and their chemical constitution and action on body to use Castor oil safely with a scope for future research.

##### Vehicle (Drink along with medicine):

Vehicle refers to a supplement that is taken either with or after the main treatment to improve its therapeutic effect.

##### Bhaishajya Ratnavali indicates Castor Oil as Vehicle :

Sinhaasyaadi Decoction : Castor Oil as Vehicle indicated for Sciatica<sup>[13]</sup>

Sampakadi Decoction: as Vehicle Castor Oil for Gout<sup>[14]</sup>

Snihasyadi decoction: Vehicle Castor Oil indicated for Rheumatoid arthritis<sup>[15]</sup>

Sampakadi Decoction: Vehicle Castor Oil, indicated for Gout<sup>[16]</sup>

Rasanadi Decoction: Vehicle Castor Oil, indicated for Rheumatoid arthritis<sup>[17]</sup>

Dashmoolrasanadi decoction: Vehicle Castor Oil, indicated for Rheumatoid arthritis<sup>[18]</sup>

Madhyam Rasanadi Decoction: as Vehicle Castor Oil for Lumbar pain, lumbar colic pain<sup>[19]</sup>

Rasanadi Decoction: Castor Oil as Vehicle indicated for Hernia<sup>[20]</sup>

Terminalia chebula Retz. Prayog-1: Castor Oil as Vehicle indicated for Testicle enlargement<sup>[21]</sup>

Commiphora mukul Hook. Prayoga : Castor Oil as Vehicle indicated for Air lift<sup>[22]</sup>

##### Properties and Action of Castor Oil<sup>[23]</sup>

Taste : Sweet, Astringent

Properties : Heavy, Piercing, Minute, Mobility, sliminess

Potency :Hot Potency

After digestion effect : undergoes Sweet taste conversion after digestion

Therapeutics Effect : Cleanses body channels, Improves Skin quality, Aphrodisiac, Antiaging Rejuvenate, Useful in cleansing vagina, useful in cleansing semen, improve health, improves intelligence, improves skin glow, improves memory

### Chemical Constituents

Traditional medicinal plants have shown to be a rich source of unique biological active compounds , with many of them serving as the foundation for the production of new lead chemicals for pharmaceuticals for new drug discovery.(Table No. 1, 2& 3)

### Pharmacological Activities<sup>[49-57]</sup>

It is being recommended to alleviate various disease conditions like Pain, Inflammation, Abdominal lump, Piles, Fever, Distention of abdomen due to Humours of body constitution, Hepato-splenomegaly, Worms, Rheumatoid arthritis, Lower backache, Headache, Pain in urinary bladder, Cough, Respiratory disorders, Dysuria, Skin disorders, Enlargement of scrotum, Skin diseases, Diseases of joints, Disorders of semen, etc.

## II. DISCUSSION:

*Ricinus Communis* is found throughout India and has been used medicinally for centuries. Among the thousands of medicinal plants, *Ricinus communis* or castor plant is a widely used and powerful medicinal plant. More scientifically based research on its property and various modes of administration must be conducted. A systematic review of Castor Oil provides details on its use, dosage, adverse reactions, and so on. Obstruction at cellular level is the primary cause of disease generation. It has a wide range of indications and is used in many potent formulations. It is a conventional laxative that has fewer side effects and is less expensive. It has the property of calming entity of body constitution, as well as at the minute channels cleansing and Rejuvenation. Castor Oil has a much greater therapeutic value and can be used to treat a variety of conditions<sup>[58]</sup>.

Castor Oil has such high antioxidant activity at low concentrations that it could be very useful for the treatment of disease caused by

oxidative stress. The active chemical constituents are methyl ricinoleate, ricinoleic acid, 12-octadecadienoic acid, and methyl ester, which produce antioxidant activity<sup>[59]</sup>.

If used orally, castor oil is a good laxative that aids in straining during defecation and the sensation of complete evacuation following a bowel movement. Its active ingredient, ricinolic acid, is released in the colon, where it aids digestion, nutrition absorption, and system cleansing. Castor oil also functions as a natural antibacterial, antifungal, and antimicrobial agent, addressing the root causes of skin diseases. Castor oil can be used to stimulate labour. Castor oil, which stimulates uterine contractions, has been given orally to pregnant women at full term for generations. Castor oil is frequently used to treat arthritic pain, swelling, and inflammation. It contains natural anti-inflammatory effects, making it an excellent massage oil for painful joints, muscles, or tissue. The thymus gland's overall health, blood flow, lymphatic drainage, and other immune system processes are all thought to be enhanced by castor oil<sup>[60]</sup>.

## III. CONCLUSION:

A thorough examination of the evidence-based activity of the formulations mentioned in Bhaishajya Ratnavali reveals that these formulations can be used effectively in all diseased conditions. This knowledge may be useful in developing safe and dependable therapeutic conditions for all types of diseases, which are currently unavailable on the herbal drug market.

Castor Oil is such a miraculous drug that every physician should be aware of its benefits and use it responsibly to combat various diseases, as well as for disease prevention and rejuvenation. According to the findings of the current study, studies on hypolipidemic, anti-inflammatory, antioxidant, and analgesic compounds, as well as their chemical constituents, have been conducted in the modern era. In Traditional system of Indian Medicine medicine , Castor Oil is commonly used in combination with Vehicle in compound dosage forms. Castor Oil Pharmaceutics emphasises the adaptable nature and prominence of Castor Oil in Traditional system of Indian Medicine. The current review study compiled significantly less preclinical and clinical research work on the uses of Castor Oil and its unexplored Traditional system of Indian Medicine formulations.

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