

PHARMACOLOGICAL REVIEW OF 'RAKTAPACHAKA YOGA' FROM CHARAKA SAMHITA WITH SPECIAL REFERENCE TO ITS ACTION ON *DOOSHIVISHA*

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ABSTRACT-

The term '*Dooshivisha*' denotes a variety of denatured / attenuated poisons that has not been fully excreted out from the body. It is herbal/animal/mineral poison, of which, potency is lessened due to various factors. It produces delayed or cumulative toxicity effects concerned with various *Srotas*. Effects such as altered complexion, discoloration, red patches on skin, oedema, urticaria etc. suggest involvement of *RaktavahaSrotas* to great extent. Blood-letting (*Siravedha*) is even mentioned as a treatment modality for *Dooshivisha* by Charaka. Thus, a normalcy of *RaktaDhatu* can prove as an important aspect of treatment of *Dooshivisha*.

Of many available medicine options, *DhatuPachak Yoga* from Charaka Samhita provides a strong treatment option in case of vitiation of *Dhatu*. Although mentioned in treatment of *VishamaJwara*, they hold a special space in bringing normalcy to *Dhatu* in many different conditions. Owing to involvement of *RaktavahaSrotas*, a pharmacological review of contents of '*Raktapachaka Yoga*' was carried out in present research. The botanical description, pharmacological properties etc. were compiled and studied from texts of Ayurveda as well as modern science. The review of these contents, viz., *Patola (Trichosanthesdioica)*, *Sariva (Hemidesmusindicus)*, *Musta (Cyperusrotundus)*, *Patha (Cissampelospaireira)* and *Katuki (Picrorhizakurroa)* were carried out specially to understand their role in treatment of signs and symptoms of *Dooshivisha*. The review revealed the promising potential of this great combination in treatment of *Dooshivisha*.

Keywords- Poison, *Visha*, *Rakta*, *Jwara*, CharakaSamhita, *Dooshivisha*

Introduction-

Among *Ashtang Ayurveda*, '*AgadTantra*' is a dedicated stream that deals with study and management of various forms of poisons. The great treatises of Ayurveda, such as CharakaSamhita, SushrutaSamhita etc. have meticulously elaborated various types of *Visha*

(poison), their special features, signs and symptoms of toxicity and also ways to treat them.^{1,2}

Among them, '*Dooshivisha*' is a specific concept, different from general variety of poisons.

The term *Dooshivisha* consists of two terms, '*Dooshi*' and '*Visha*'. It literally means denatured/attenuated poisons. They represent a class of poisons from herbal and animal sources that have remained latent in the body for a long period of time. These poisons are less in potency. Thus, they are not fatal. Due to their incomplete excretion or partial detoxification by the anti-poisonous drugs and some natural factors like, fire, the wind or the sun; they become latent in body.³ Over time, as they get enveloped (*Avarana*) by *KaphaDosha*, they produce cumulative toxicity effects.

The concept of *Dooshivisha* clearly indicates an involvement of *Tridosha*, seven *Dhatu* and their *Srotas* too. Among the signs of *Dooshivisha*, effects such as altered complexion, discoloration, red patches on skin, oedema, urticaria etc. suggest involvement of *RaktavahaSrotas* to great extent. The factors that aggravate *Dooshivisha*, such as *Dooshita Desha* (Polluted land), *Kala* (deranged seasons), *Anna* (toxic food) and *Diwaswapna* (daytime sleep), also seem to vitiate *RaktaDosha* further.⁴ Blood-letting (*Siravedha*) is even mentioned as a treatment modality for *Dooshivisha* by Charaka.⁵ Thus, a normalcy of *RaktaDhatu* can prove as an important aspect of treatment of *Dooshivisha*.

Various anti-poisonous medications (*Agad*) are described to manage this condition. However, in many cases, where *RaktaDhatuDushti* is much more, we can also think for some auxiliary measures that can help to maintain proper metabolism of *RaktaDhatu*. In *JwaraChikitsa* of CharakaSamhita, description of *Vishamajwara* is somewhat similar to etiopathogenesis of *Dooshivisha*. The *DhatuPanchak Yoga*⁶ described in there has been repurposed in treatment of many conditions with similar flow of *Samprapti*. In light of this, it was thought that, *RaktaPachak Yoga* can prove to be efficacious in treatment of *Dooshivisha*, where *RaktaDushti* is extensive, such as *Kushtha*, *Visarpa* etc. Thus, the present review was carried out to compile and study botanical description, pharmacological properties etc. of the contents of *Raktapachak Yoga*.

Methods-

The reference of *Raktapachak Yoga* from CharakaSamhita was considered for this literary review. The contents of this *Yoga*, were studied thoroughly. Major texts of Ayurveda were searched to obtain their information, properties and usage. Their botanical and pharmacological properties as well as the research works done were retrieved and studied from published literature in journals available online. The data was presented and discussed elaborately.

Results-

The contents of *RaktapachakYoga* are mentioned in Table 1 along with their Latin names and part used in preparation of this formulation. It was observed that, this formulation is not mentioned with any name at the source. It is described as a treatment for ‘*SatataJwara*’, which is a type of *Vishamajwara*, where there is major vitiation of *RaktaDhatu*. Here, it is originally prescribed in a *Kwatha* (decoction) form. However, today, it is also available as compressed tablets, extract etc.

Table 1- Ingredients of *Raktapachak Yoga*

| Sr. No. | Ingredient | English Name | Latin Name | Part Used in formulation |
|---------|---------------|---------------------|----------------------------|--------------------------|
| 1 | <i>Patola</i> | Pointed Gourd | <i>Trichosanthesdioica</i> | Fruit |
| 2 | <i>Sariva</i> | Indian Sarsaparilla | <i>Hemidesmusindicus</i> | Root |
| 3 | <i>Musta</i> | Nut Grass | <i>Cyperusrotundus</i> | Dried rhizome |
| 4 | <i>Patha</i> | Velvet leaf | <i>Cissampelospareira</i> | Root |
| 5 | <i>Katuki</i> | Hellebore | <i>Picrorhizakurroa</i> | Dried rhizome with Root |

The properties of each of these ingredients are elaborated as follows-

1. Ayurveda-

In this section, *Rasa*, *Vipaka*, *Veerya*, *Guna* and action of *Dosha* for each of these ingredients according to *DravyaGunaVigyanaisdescribed*.⁷ Also, the specific groups or *Gana* in which they are included by Charaka Samhita⁸ and Sushruta Samhita⁹ has been mentioned. They have been tabulated in Table 2.

Table 2- Description of *Raktapachak Yoga* as per Ayurveda

| Sr. No. | Ingredient | Rasa | Vipaka | Veerya | Guna | Action on Dosha | Gana |
|---------|---------------|-----------------------------|----------------|---------------|-----------------------|--|---|
| 1 | <i>Patola</i> | <i>Tikta, Katu</i> | <i>Katu</i> | <i>Ushna</i> | <i>Laghu, Ruksha</i> | <i>Pitta-KaphaShamana</i> | <i>Truptighna, TrushnaNigrahana, Patoladi, Aragvadhadi</i> |
| 2 | <i>Sariva</i> | <i>Madhura</i> | <i>Madhura</i> | <i>Sheeta</i> | <i>Snigdha, Guru</i> | <i>TridoshaShamana, especially Pitta</i> | <i>Jwarahara, DahaPrashamana, PurishaSangrahaniya, StanyaShodhana, MadhuraSkandha, Sarivadi, Vidarigandhadi, ValliPanchamoola</i> |
| 3 | <i>Musta</i> | <i>Tikta, Katu, Kashaya</i> | <i>Katu</i> | <i>Sheeta</i> | <i>Laghu, Ruksha</i> | <i>Pitta-KaphaShamana</i> | <i>Lekhaniya, Trushnanigrahana, Kandughna, Stanyashodhana, Mustadi, Vachadi</i> |
| 4 | <i>Patha</i> | <i>Tikta, Katu</i> | <i>Katu</i> | <i>Ushna</i> | <i>Laghu, Tikshna</i> | <i>TridoshaShamana</i> | <i>Sandhaniya, Jwarahara, Stanyashodhana, Mustadi,</i> |

| | | | | | | | |
|---|---------------|------------------------|-------------|--------------|--------------|----------------------|--|
| | | | | | | | <i>Aragvadhadi, Pippalyadi, Ambashthadi, Bruhatyadi, Patoladi</i> |
| 5 | <i>Katuki</i> | <i>Tikta, Katu</i> | <i>Katu</i> | <i>Ushna</i> | <i>Laghu</i> | <i>Pitta Shamana</i> | <i>Bhedaniya, Lekhaniya, Stanyashodhana, TiktaSkandha, Patoladi, Pippalyadi, Mustadi</i> |

2. Botanical Constituents and pharmacological properties of contents of *Raktapachak Yoga*-

The botanical composition of different parts of herbs contained in *RaktapachakYoga* is being studied extensively. Many researchers have also studied their pharmacological properties. They are tabulated in Table 3.

Table 3- Botanical Constituents and pharmacological properties of contents of *Raktapachak Yoga*

| Sr. No. | Ingredient | Botanical Constituents ¹⁰ | Pharmacological Properties |
|---------|------------|--------------------------------------|----------------------------|
| | | | |

| | | | |
|---|---------------|---|--|
| 1 | <i>Patola</i> | hentriacontane, trichosanthin, saponin, fixed oil, starch Colocynthin, essential oil containing terpens, traceof tannin | Chemo Preventive ¹¹ , Laxative ¹² , Nematocidal and Anthelmintic ¹³ , Anti-inflammatory & anti-nociceptive ¹⁴ , Anti-hyperglycaemic & antihyperlipidemic ¹⁵ |
| 2 | <i>Sariva</i> | Essential oil, saponin, resin, tannins, sterols and glucosides | Anti-microbial ¹⁶ |
| 3 | <i>Musta</i> | Volatile Oil | Anti-Inflammatory ¹⁷ , Anti-Pyretic ¹⁸ , Analgesic, Tranquillizing ¹⁹ , Anti-convulsion ²⁰ |
| 4 | <i>Patha</i> | Alkaloids, saponin and quaternary ammonium bases, flavanol and Sterol | Antinociceptive and anti-arthritic ²¹ , Anti-inflammatory ²² , Anti-fertility ²³ , Antioxidant ²⁴ , Anti-haemorrhagic ²⁵ |

| | | | |
|---|---------------|-------------------------|---|
| 5 | <i>Katuki</i> | Glucoside (Picrorhizin) | Hepatoprotective ²⁶ , Anti-Asthmatic ²⁷ , Anticancer ²⁸ , Anti-Microbial ²⁹ , |
|---|---------------|-------------------------|---|

| | | | |
|--|--|--|-------------------------------|
| | | | Immunomodulator ³⁰ |
|--|--|--|-------------------------------|

Discussion-

As *Jwara* is synonymous to *Vyadhi*, its treatment protocol can be used as treatment guidelines for other diseases too. The '*DhatuPachak Yoga*' originally described for treatment of *Vishamajwara*, have been successfully used by physicians as per their discretion. The *Dooshivisha* is one such peculiar condition, which requires a deep approach to treat latent poisons. Thus, in present study, a comprehensive literary study of Ayurveda and botany and pharmacology was carried out to reveal promising potential of '*Raktapachak Yoga*'. It can be seen that; the contents of this formulation are predominantly *Pitta* and *Kapha* pacifiers. The association of these *Dosha* in instigation and manifestation of *Dooshivisha* is well established in Ayurveda. Also, *Pitta Dosha* and *RaktaDhatu* have '*Ashraya-Ashrayi*' relationship. Thus, they can help in bringing normalcy to *RaktaDhatu* also. Another important aspect of this formulation is its availability. Due to its broad spectrum of action, this formulation and its contents are easily available in market. From the present review, they seem to be more beneficial in treating signs of *Dooshivisha* related to skin ailments such as urticaria, skin rashes etc. However, its efficacy in such conditions requires further exploration through pre- clinical and clinical studies.

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