A REVIEW ON APPLIED ASPECT OF MISHRAKA GANA – PANCHAKSHIRI

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ABSTRACT

Modern science follows the concept of giving combination of two - three antibiotics along with other drugs like analgesic, anti-inflammatory etc in treatment to cure all the complaints present in a disease. From ancient time, our Ayurvedic Acharyas have been using the same rule. They have introduced terms like “Mishraka ganas”, “Mahakashaya” which include combination of two or more drugs having same properties and mode of action. The drugs in particular combination acts on factors like dosha, dhatu, mala, as well as aagni, all of which are responsible for development of a particular disease. Panchakshiri, one of Mishraka gana mentioned by Bhavprakasha consist of tikta – Kashaya rasa which acts on kapha dosha, madhura vipaka and sheet virya which acts on pitta dosha and rakta dhatu. It has special use in yoni and garbhashaya vikara because it is prithvi mahabhoot pradhna which act on masapradhan avayva.

KEYWORDS: - Panchakshiri, Kashaya rasa, Shoshana, Stambhana, Ruksha – Grahi guna.

INTRODUCTION

- The drugs which are mentioned in ancient Ayurvedic texts have such a potential that even when they are used single handedly can cure the signs and symptoms of the disease, which is termed in Ayurvedic literature as “Ekal Dravya Chikitsa”. But when
combination of two or more drugs having similar guna-karma is use, it gives best result in treating different vyadhis. This is similar to the potentiation concept in modern pharmacology. It is indeed amazing that how the ancient physicians selected various plants for combining successfully with the idea of enhancing their therapeutic efficacy.¹

- The combination of two or more drugs having similar properties and therapeutic uses is termed as “Mishraka gana”. The Mishraka Ganas are classified on the basis of Morphology {eg. Trunapanchamula, kantakpanchmula} Quality {eg – panchsugandhi, trisugandhi} and also according to their pharmacological activity.

- This type of grouping is helpful to remember the drugs, their quality, easily availability and their therapeutic uses.

  Panchakshiri, a combination of five astringent drugs named Nyagrodha, Udumbara, Ashvatha, Parisha, and Plaksha, which secretes latex i.e Shir, is one of the great combination from Mishraka gana. It is generally called as Panchvalaka because the bark (Valkala) of this five drugs is generally used.²

न्यौग्रोधोदुम्बप्राश्वात्वपरिशापक्षापदप:।

पच्चेते क्षीरिणो वृक्षास्तेषां त्वक पंचवत्कलम्॥ (आ.प्र.नि.व. १६)

The classical panchakshiri is combination of five drugs of ficus family namely:- Vata (Ficus bengalensis), Udumbara (Ficus glomerate), Plaksha (Ficus infectoria\lacor), Ashwatha (Ficus religiosa) and Parish (Thespesia populnea).

In Ayurveda sometimes substitute plants or alternatives (paryayi dravya) are also described. These are useful in following conditions:

A. If the drug is not available because it does not grow in that region.

B. If the paryayi (substitute) drug has better result in treating a particular patient according to his prakriti or hetu or doshaprokop or vyadhi awastha.³

Since Parisha is not widely available and not so well documented, The alternatives for classical panchakshiri described in ayurvedic texts is Vetas (Calamus rotang) according to Rajnighantu. Panchakshiri is also termed Panchavetas in Rajnighantu, due to use of Vetas instead of Parisha.⁴

न्यौग्रोधोदुम्बप्राश्वात्वपरिशापक्षापदप:।

सर्वेंकृत्रिमिलितेः पंचवेतसमूच्यते॥ (रा.नि.मि.२५)
In *Bhavprakasha* and *Kaiyadeva Nighantu*, *Shirish* is mentioned as an alternative for *Parisha*.

(केचचत्तु पारीषस्थाने शिरीष, वेतसं परे, वा बदन्तीति विशेष:)

When one of this alternative is used it is called as *Modified Panchakshiri*.

*Panchakshiri* is Kashaya rasa Pradhan, consists of ruksha, stambhan guna, has shoshana - ropana karma, have Vayu – Prithvi Mahabhota dominance due to which its main area of action is in various gynacological problems like leucorrhrea, menorrhagia, abortions etc. and is also widely used for wound healing purpose. In recent past years, various researches have been carried and different qualities like anti-bacterial, anti-inflammatory, anti-cancerous, anti-oxidant, antiseptic of *Panchakshiri* has been proved. The present articles aimed to highlight the clinical applied aspect of *Panchakshiri* in various diseases.

**Classicial classification**

1. **Charaka** :- Mutrasangrahaniya, kashayaskandha
2. **Sushruta** :- Nyagrodadh[7]
3. **Bhavprakasha** :- Shirivruksha, Panchvalkala
4. **Adarsha Nighantu**:- Vatadi varga
5. **Dhanvantari Nighantu** :- Aamradi varga

**पंचक्षीरि गुण धर्म**

कृतिरिवृक्षा हिसा वर्ण्या योनिरोग्रणापहि:।

रक्षा: कषाया भेदोघ्ना विसर्पांवयनाश:।

शोषापित्तकवास्त्रन: स्तन्या भग्नास्थियोजकः।

त्वक्षंपचंकं हिमां ग्राहि वणशोषितविसर्पजित्॥

तेषां पत्रं हिमां ग्राहि कफवातास्त्रनुलघु।

विष्टम्माध्यानजित्त्वं कषायं लघु लेखनम्॥ (भा.प्र)
पंचक्षीिी वृक्ष के पत्र

तेषां पत्रं हिमं स्वादु सतिकं तुवरं लघु ।
लेखनं कफपित्तत्त्वं विषमाभ्यामानवातिजित् ॥
कषामा: स्तम्भना:शीता हिता पित्ततिसारिणाम् ।
पल्लवा:क्षीिीवृक्षाणां (के.नि)

क्षीिीवृक्ष के फल

फलं तेषां तु वातुकृत् ।
कषायं मधुरं साम्सं गुरु विषंमित्त पित्ततिजित् ॥ (के.नि)

क्षीिीवृक्ष के क्षीर

स्थावरं तसदुभं तु कफवातप्रणाशनम् ।
वातगुल्महं चोषणं काशवासनिबंहणाम् ।
हल्लासारविशोधनं गुरु स्निग्धं विददहकृत् ।
ईषत् पित्तकरं वृष्मसतिस्वादुं च कथ्यते ॥[11]

**Table no. 1: Latin name– Family – Synonyms.**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Latin name</th>
<th>Family</th>
<th>Synonyms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nyagrodha</td>
<td>Ficus bengalensis</td>
<td>Moraceae</td>
<td>Raj nighantu - 19 prayaya Vata Raktaphala Bahupada English name – banyana</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(raj nighantu – urticaeae)</td>
<td></td>
</tr>
<tr>
<td>Udumbara</td>
<td>Ficus glomerate</td>
<td>Moraceae</td>
<td>Raj nighantu - 14 prayaya Hemadudhaka jantuphala apushpa English name: - country fig cluster fig</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kakaudymbara (one of the species)</td>
<td>Ficus hispida \ oppositifolia</td>
<td>Moraceae</td>
<td>Raj nighantu - 13 prayaya Kharpati Rajika Ajakshi</td>
</tr>
<tr>
<td>Ashwatha</td>
<td>Ficus religiosa</td>
<td>Moraceae</td>
<td>Raj nighantu - 20 prayaya</td>
</tr>
</tbody>
</table>
Table no. 2: Morphology.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Morphology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nyagrodha</td>
<td>- It is a large evergreen fast-growing tree upto 30 meter</td>
</tr>
<tr>
<td></td>
<td>- It has spreading branches and many aerial roots</td>
</tr>
<tr>
<td></td>
<td>- It is found throughout india.</td>
</tr>
<tr>
<td></td>
<td>- Leaves – thick, glossy, oval- elliptical shaped</td>
</tr>
<tr>
<td></td>
<td>- Fruits – round red coloured, spongy</td>
</tr>
<tr>
<td></td>
<td>- Flowers: - not visible in the tree, female and male flowers are enclosed in an axillary, sessile, depressed red fruit</td>
</tr>
<tr>
<td></td>
<td>- Bark: - thick, whitish coloured.</td>
</tr>
<tr>
<td>Udumbara</td>
<td>- It is fast growing deciduous tree with large, rough leaves.</td>
</tr>
<tr>
<td></td>
<td>- Its figs grow on or close to tree trunk, termed cauliflory.</td>
</tr>
<tr>
<td></td>
<td>- Bark: - 8-10mm thick, surface reddish brown</td>
</tr>
<tr>
<td></td>
<td>- Latex – milky</td>
</tr>
<tr>
<td></td>
<td>- Leaves – ovate – elliptical shaped, 7-10cm long</td>
</tr>
<tr>
<td></td>
<td>- Flowers- invisible, because they are sheathed within the fruits</td>
</tr>
<tr>
<td></td>
<td>- Fruits – subglobose, smooth and pyriform type</td>
</tr>
<tr>
<td>Ashwatha</td>
<td>- It is dry season large deciduous tree.</td>
</tr>
<tr>
<td></td>
<td>- Leaves are cordate, fruits are small figs, green ripening into purple.</td>
</tr>
<tr>
<td></td>
<td>- Bark – white-brown colour.</td>
</tr>
<tr>
<td></td>
<td>- Fruits: - small, round, green when unripe, turn blackish when ripe.</td>
</tr>
<tr>
<td></td>
<td>- Flowers: - unisexual, axillary and sessile, receptacles in pairs[14]</td>
</tr>
<tr>
<td>Pareesha</td>
<td>- It is medium size dense evergreen tree.</td>
</tr>
<tr>
<td></td>
<td>- Bark is smooth, slightly fissured.</td>
</tr>
<tr>
<td></td>
<td>- Leaves are leathery, heart shaped</td>
</tr>
<tr>
<td></td>
<td>- Fruits: - rounded but flattened</td>
</tr>
<tr>
<td></td>
<td>- Flowers: - cup shaped hibiscus like pale yellow with a dark blotch at the base of petals [15]</td>
</tr>
<tr>
<td>Plaksha</td>
<td>- It is large, spreading, fast growing deciduous tree.</td>
</tr>
<tr>
<td></td>
<td>- Leaves are renal oval shaped.</td>
</tr>
<tr>
<td></td>
<td>- Bark is pale brown coloured.</td>
</tr>
<tr>
<td></td>
<td>- Fruits are small, round, pale red coloured.flowers – hypanthodium[16]</td>
</tr>
</tbody>
</table>
### Table no. 3: Rasapanchaka.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Rasa</th>
<th>Virya</th>
<th>Vipaka</th>
<th>Guna</th>
<th>Karma</th>
<th>Doshaghata</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nyagrodha</strong></td>
<td>Kashaya Madhura</td>
<td>Sheeta</td>
<td>Madhura</td>
<td>Guru Ruksha</td>
<td>Vednasthapana vranaropana Chakshushya Garbhashyashothahara shukrastambhaka dahaprasamana</td>
<td>Kapha pitta Shamak</td>
</tr>
<tr>
<td><strong>Udumbara</strong></td>
<td>Kashaya (apakva) Madhura (pakva)</td>
<td>Sheeta</td>
<td>Madhura</td>
<td>Guru Ruksha</td>
<td>Ruchivardhaka jatharagni vardhaka bhagna sandhaniya bhruhaniya masavardhaka</td>
<td>Kapha pitta rakta Shamak</td>
</tr>
<tr>
<td><strong>Kakaudumbara</strong></td>
<td>Amla + Katu (r.n) Tikta + Madhura (b.p)</td>
<td>Sheeta</td>
<td>Madhura</td>
<td>Guru Ruksha</td>
<td><strong>Twak</strong> – sthambhaka <strong>Pakva phala</strong> – mrudu rechana, anulomaka * swashahara</td>
<td>Kapha pitta Shamak</td>
</tr>
<tr>
<td><strong>Ashwatha</strong></td>
<td>Kashaya Madhura</td>
<td>Sheeta</td>
<td>Madhura</td>
<td>Guru Ruksha</td>
<td>Vishaghna medohara kustaghna sandhaniya</td>
<td>Kapha pitta Shamak</td>
</tr>
<tr>
<td><strong>pareesha</strong></td>
<td>Kashaya</td>
<td>Sheeta</td>
<td>Katu</td>
<td>Guru Ruksha</td>
<td>Stambhaka Raktashodhak</td>
<td>Kapha pitta Shamak</td>
</tr>
<tr>
<td><strong>Plaksha</strong></td>
<td>Kashaya Madhura</td>
<td>Sheeta</td>
<td>Madhura</td>
<td>Guru Ruksha</td>
<td></td>
<td>Kapha pitta Shamak</td>
</tr>
</tbody>
</table>

### Table no. 4: Chemical composition.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Phytoconstituents</th>
</tr>
</thead>
</table>
| **Nyagrodha** | - Bark – 11% tannin, leucopelargonin, rhamnoside  
- Leaves – rutin, friedelin  
- latex – malic acid, cerin, resin[^17] |
| **Udumbara** | - Leaves – guanol acetate, racemosic acid  
- Stem bark: - bergenin, kaempferol, coumarin  
- Trunk bark: - lupenol, stigmestrol  
- Fruits: - tiglic acid, friedelin[^18]  
- Latex: - euphol |
| **Ashwatha** | - Stem bark: - lanosterol, stigmasterol  
- Fruits: - quercetin, myricetin[^19] |
| **Pareesha** | - Flowers – gossypol, populinin, herbecetin  
- Bark – sesquiterpene, orthonaphthoquinone[^20] |
| **Plaksha**  | - Leaves – sorbifolin, scutellarin  
- Bark – lanosterol, bergenin[^21] |
Table no. 5: Pharmacological actions.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Pharmacological actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nyagrodha</td>
<td>Anti-inflammatory&lt;br&gt;Antioxidant&lt;br&gt;Antibacterial&lt;br&gt;Antidiabetic&lt;br&gt;Antihelmintic&lt;br&gt;Immunomodulatory&lt;br&gt;Ameliorative</td>
</tr>
<tr>
<td>Udumbara</td>
<td>Hepatoprotective&lt;br&gt;Hypoglycemic&lt;br&gt;Antiseptic&lt;br&gt;Vermicidal&lt;br&gt;Antipyretic&lt;br&gt;Latex – aphrodisiac</td>
</tr>
<tr>
<td>Ashwatha</td>
<td>Antimicrobial&lt;br&gt;Antiulcer&lt;br&gt;Hepatoprotective&lt;br&gt;Antiparastic&lt;br&gt;Anti-parkinson’s anti –diabetic</td>
</tr>
<tr>
<td>Pareesha</td>
<td>Memory enhancer&lt;br&gt;Antiulcer&lt;br&gt;Antidiabetic&lt;br&gt;Cytotoxic</td>
</tr>
<tr>
<td>Plaksha</td>
<td>Hepatoprotective&lt;br&gt;Anti – arthritic&lt;br&gt;Anti – diabetic&lt;br&gt;Anti – inflammatory</td>
</tr>
</tbody>
</table>

Mode of action of panchakshiri in various disorders.

1. **Yonigat strava**

*Swetaastrava* (Leucorrhea), Menorrhegia comes under the term “yonigat strava”.

- **Samprapti**

Due to various hetusevana like kapha- pitta prakopak ahara-vihara ➞ Aagnimandya and Aamutpatti ➞ Kapha Pradhan Tridosha-dushti, where Vata dushti occurs due to its chala guna, Pitta dushti occurs due to its Snigdha and Picchila guna and Kapha get dushit due to its drava and sara guna. ➞ This Dushit Dosha reaches in Yoni and Garbhashaya via Apanavayu ➞ Yonigata stanshanshaya, sanga and do Yonidushti which ➞ leads to sympotms like Yonigata strava, kandu, shotha, vranya, durgandha.\(^{[22]}\)
• **Mode of action**

- **Rasa:** - *Panchakshiri* drugs consist of *Kashaya rasa*, due to which they possess *Stambhana, Shoshana, Kledahara, Shothahara, Krimihara* properties which help to cure the inflammation, swelling, reduce the vaginal discharge and infection.

- **Guna:** - The *ruksha* and *guru guna* reduce the *drav guna of prakupit pitta* and the *snigdha – pichilla guna of dushit kapha dosha*.

- **Tannins and Flavoniods** – possess the anti-inflammatory and anti-bacterial actions

2. **Dantamulagat roga**

- *Sushruta* has mentioned 15 diseases in *dhantmulagat roga* while *Vagbhata* has mentioned 13 diseases. In *dhantmulagat* disease there is *dusti of kapha dosha and rakta dhatu*, also later on then occur *dusti of masa and asthi dhatu*. The main symptoms include *shotha, vedna, rakta -puya strava, chaladanta*.\(^{[23]}\)

- **Mode of action**

  - The drugs of *Panchakshiri* are *Kapha- Pitta shamak and Raktavikara nashaka* property.
  - It has *Sheet virya* which reduce the *paka, and puya utpatti*.
  - *Ruksha* and *Grahi Guna do shoshana of puyastrava and rakta strava*.
  - It possesses *bhagnasthisandhana* property thus reduce the main symptom *chaladanta*.
  - *Kashaya rasa* has ability to do Sthirikaran of Twak and Masa dhatu at dantmula .

3. **Dushta vrina**

There are two types of *vrina:* - *Nijavrana and Aganthuja varna*

*Nijavrana* occurs due to deranged *dosha* due to their respective etiological factors, *Aghanhuja vrina* occurs due to internal\external injury due respective etiological factors or non-living objects.

Vrina have symptoms of *Shotha, Vedana, Ruja, Strava, Jwara, Twaka vaivarnya*. After *vrina utpatti if apathyya* is done lead to *prakop of dosha* in excess amout which leads to *Dushta-vrina*.\(^{[24]}\)
Mode of action

- **Kashaya rasa** has *Pidana* property which remove accumulated *kleda*, *puya* from *vrana*
- They do scavenging action due to *Lekhana* and *Medoghna karma*, thus do *Shodhan* of *vrana*
- They are *Vata Mahabhut Pradhan* & consist of *Ruksha* + *Ghrahi guna* – *shoshan* of *kleda*, *meda*, *puya*
- Due to, *Sheet virya Shothaghna, Jwarahara, Krimihara* property – reduces, swelling, fever and infection
- They have *Masavardhana + Varnya* property, do *sthirikaran of twacha & masa* which help in *vrana ropana* by filling the cavity which is formed in *dushta vrana*

4. **Mukhadushika**
   - **Mukhadushika** is skin disorder mentioned under Shurdra *Kustha Roga*.
   - According to *Sushruta* and *Vagbhatta*, it generally occurs on face.
   - It is *Kapha – Vata Pradhan* vyadhi with *Rakta as a dushya* according to *Sushruta* and *Meda as a dushya* according to *Vagbhata*. As per *Vagbhata*, due to *Meda dhatu dhushti*, there occur *avrodha in medapindadvara*, which leads to accumulation of *meda* and lead to *pitika utapati* which is called as *mukhadushika*.[25]
   - According to modern Stress, Hormonal imbalance are some etiological factors.
   - *Panchakshiri Gana* has *Kapha – Vatahara* properties.
   - It is *Rakta Shodhaka* and *Medohara* which acts on both the *dushya*.
   - They have *varnya, varna ropana* properties which clear ducts and do *varna prasadana*.
   - According to modern science, infection by bacteria *Propionibacterium* causes acne (i.e *Mukhadushika*).
   - The drugs in this Gana have anti-bacterial and anti-inflammatory properties which help in treating *mukhadushika*.
   - Also, they are antioxidant which keep skin healthy, nourished and intact and free from microorganisms.

**DISCUSSION AND CONCLUSION**

- The overall study reveals that *Kashaya and Madhura rasa, Sheeta virya, Katu \ Madhura vipaka, Ruksha – Laghu guna, Kapha-pittaghna* properties of drugs of *Panchakshiri Gana* are responsible to break the *samprapti* of various diseases that occur due to *kapha – pitta- rakta*.
It is Prithvi + Vayu Mahabhoot dominant combination, which works specially on Masa dhatu and organs which are develop from Masa dhatu, that’s why it is mainly usefull in conditions releated to garbhashaya which is developed by masa dhatu, Panchakshiri thus have wonderful result in garbhaustapan, garbhashayshotha, garbhapata etc.

Vaya + Akasha Mahabhoot are responsible for karma like lekhana, stambhana, karshana, due to which Panchakshiri is useful in disease like obesity where its acts through lekhana, karshana properties, in dusta vrana where its do its action by stambhana-shoshana karma which reduces the secretion, lekhana karma which help in scavenging process.

Panchakshiri consist of antioxidant property due to which it has good result in some of skin disorders like vyanga – nalika (melasma), antioxidants are in very demand now a days as it help to reduce degeneration process and as use as anti-ageing. The Kashaya rasa of Panchakshiri is “Gati avrodhaka” that means its slow down or reduce the particular process. Therefore, it’s also slow down the process of ageing thus act as anti-ageing

Panchakshiri is phytochemically dominant in 77 phenolic group components like tannins, saponins, flavonoids, which are mainly responsible for its excellent activities like Antiseptic, Anti-inflammatory, Immunomodulatory, Antioxidants etc.

So, research should be carried out and Panchakshiri should be studied more extensively to reveal their other potential therapeutic uses.

7. REFERENCES
1. Dr Umakant N.Rabb n et all , “Pharmacological Activities Of Mishraka Gana According to Different Classical Ayurvedic Texts – A Literary Survey”, WJPR, (8)1, 560-573.


13. Dr. Vikram Chauhan, Plant Ayurveda, *Udumbara*, Cluster Fig (Ficus glomerata) – practical uses, benefits April, 2019; 30.


21. Dr.B.K, Prashantha, Java Fig; Ficus lacor, uses and research remedies, www.easyayurveda.com

22. Acharya Vidyadhar Shukla, Dr Ravidutta Tripathi, Charaka Samhita, Yonivyapadh Chikitsa Adhadhya, Chaukhamba Bharti Academy Varanasi, Chaukhamba Publication, 2015; (2).

