

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 Acharayas* 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 *Bhavprakash* 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]

न्यग्रोधोदुम्बराश्वत्थपारीषप्लक्षपादपाः ।

पच्येते क्षीरिणो वृक्षास्तेषां त्वक् पंचवल्कलम् ॥ (भा.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:

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

न्यग्रोधोदुम्बराश्वत्थप्लक्षवेतसवल्कलैः ।

सर्वैरेकत्र मिलितैः पंचवेतसमुच्यते ॥ (रा.नि.मि.२५)

In *Bhavprakasha and Kaiyadeva Nighantu*, *Shirish* is mentioned as an alternative for *Parisha*.

(केचित्तु पारीषस्थाने शिरीषं, वेतसं परे, वा वदन्तीति विशेषः)

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

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 gynaecological problems like leucorrhea, menorrhagia, abortions etc. and is also widely used for wound healing purpose.^[5] In recent past years, various researches have been carried and different qualities like anti-bacterial, anti-inflammatory, anti-cancerous, anti-oxidant, antiseptic of *Panchakashiri* has been proved. The present articles aimed to highlight the clinical applied aspect of *Panchakshiri* in various diseases.

Classical classification

1. *Charaka* :- Mutrasangrahaniya, kashayaskandha^[6]
2. *Sushruta* :- Nyagrodhadhi^[7]
3. *Bhavprakasha* :- Shirivruksha, Panchvalkala^[8]
4. *Adarsha Nighantu*:-Vatadi varga^[9]
5. *Dhanvantari Nighantu* :- Aamradi varga^[10]

पंचक्षीरि गुण धर्म

क्षीरिवृक्षा हिमा वर्ण्या योनिरोगव्रणापहाः।

रुक्षाः कषाया मेदोघ्ना विसर्पामयनाशनाः॥

शोथपित्तकफास्त्रघ्नाः स्तन्या भग्नास्थियोजकः।

त्वक्पंचकं हिमं ग्राहि व्रणशोथविसर्पजित् ॥

तेषां पत्रं हिमं ग्राहि कफवातास्त्रनुल्लघु ।

विष्टम्भाध्मानजित्त्विकं कषायं लघु लेखनम् ॥ (भा.प्र)

□ पंचक्षीरी वृक्ष के पत्र

तेषां पत्रं हिमं स्वादु सतिक्तं तुवरं लघु ।

लेखनं कफपित्तघ्नं विष्टम्भाध्मानवातजित् ॥

कषायाः स्तम्भनाः शीता हिता पित्तातिसारिणाम् ।

पल्लवाः क्षीरीवृक्षाणां ॥ (कै.नि)

□ क्षीरीवृक्ष के फल

फलं तेषां तु वातकृत् ।

कषायं मधुरं साम्लं गुरु विष्टंभि पित्तजित् ॥ (कै.नि)

□ क्षीरीवृक्ष के क्षीर

स्थावरं तरुदुग्धं तु कफवातप्रणाशनम् ।

वातगुल्महरं चोष्णं कासश्वासनिर्बहणम् ।

हृल्लासारुचिशोफघ्नं गुरु स्निग्धं विदहकृत् ।

ईषत् पित्तकरं वृष्यमतिस्वादु च कथ्यते ॥^[11]

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

| Drug | Latin name | Family | Synonyms |
|--------------------------------------|----------------------------------|---|---|
| Nyagrodha | Ficus bengalensis | Moraceace (raj nighantu – urticaeaceae) | Raj nighantu - 19 prayaya Vata Raktaphala Bahupada English name – banyana |
| Udumbara | Ficus glomerate | Moraceace | Raj nighantu - 14 prayaya Hemadudhaka jantuphala apushpa English name: - country fig cluster fig |
| Kakaudymbara (one of the species) | Ficus hispida \ oppositifolia | Moraceace | Raj nighantu - 13 prayaya Kharpatri Rajika Ajakshi |
| Ashwatha | Ficus religiosa | Moraceace | Raj nighantu - 20 prayaya |

| | | | |
|--------------------------------------|---|-----------|--|
| Nandivruksha (one of the species) | Ficus retusa | | <i>bodhivruksha</i> <i>Pipal</i> <i>Kapitan</i> English name: - sacred fig |
| Pareesha | Thespesia populnea soland | malvaceae | <i>kapitan</i> <i>gardbhand</i> English name: - portia tree |
| Plaksha | ficus lacor buch ficus amplissima syn ficus infectoria roxb | Moraceae | <i>Raj nighantu - 22 prayaya</i> <i>Parkati</i> <i>Chandrat</i> <i>Mahabala</i> |

Table no. 2: Morphology.

| Drug | Morphology |
|-----------|---|
| Nyagrodha | <ul style="list-style-type: none"> It is a large evergreen fast-growing tree upto 30 meter It has spreading branches and many aerial roots It is found throughout india. Leaves – thick, glossy, oval- elliptical shaped Fruits – round red coloured, spongy Flowers: - not visible in the tree, female and male flowers are enclosed in an axillary, sessile, depressed red fruit Bark: - thick, whitish coloured.^[12] |
| Udumbara | <ul style="list-style-type: none"> It is fast growing deciduous tree with large, rough leaves. Its figs grow on or close to tree trunk, termed cauliflory. Bark: - 8-10mm thick, surface reddish brown Latex – milky Leaves – ovate – elliptical shaped, 7-10cm long Flowers- invisible, because they are sheathed within the fruits Fruits – subglobose, smooth and pyriform type^[13] |
| Ashwatha | <ul style="list-style-type: none"> It is dry season large deciduous tree. Leaves are cordate, fruits are small figs, green ripening into purple. Bark – white-brown colour. Fruits: - small, round, green when unripe, turn blackish when ripe. Flowers: -unisexual, axillary and sessile, receptacles in pairs^[14] |
| Pareesha | <ul style="list-style-type: none"> It is medium size dense evergreen tree. Bark is smooth, slightly fissured. Leaves are leathery, heart shaped Fruits: - rounded but flattened Flowers: - cup shaped hibiscus like pale yellow with a dark blotch at the base of petals^[15] |
| Plaksha | <ul style="list-style-type: none"> It is large, spreading, fast growing deciduous tree. Leaves are renal oval shaped. Bark is pale brown coloured. Fruits are small, round, pale red coloured.flowers – hypanthodium^[16] |

Table no. 3: Rasapanchaka.

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

Table no. 4: Chemical composition.

| Drug | Phytoconstituents |
|-----------|--|
| Nyagrodha | <ul style="list-style-type: none"> ▪ Bark – 11% tannin, leucopelargonin, rhamnoside ▪ Leaves – rutin, friedelin ▪ latex – malic acid, cerin, resin ^[17] |
| Udumbara | <ul style="list-style-type: none"> ▪ Leaves – gluanol acetate, racemosic acid ▪ Stem bark: - bergenin, kaempferol, coumarin ▪ Trunk bark: - lupenol, stigmestrol ▪ Fruits: - tiglic acid, friedelin ^[18] ▪ Latex: - euphol |
| Ashwatha | <ul style="list-style-type: none"> ▪ Stem bark: - lanosterol, stigmasterol ▪ Fruits: - querecetin, myricetin ^[19] |
| Pareesha | <ul style="list-style-type: none"> ▪ Flowers – gossypol, populinin, herbecetin ▪ Bark – sesquiterpene, orthonaphthloquinone ^[20] |
| Plaksha | <ul style="list-style-type: none"> ▪ Leaves – sorbifolin, scutellarin ▪ Bark – lanosterol, bergenin ^[21] |

Table no. 5: Pharmacological actions.

| Drug | Pharmacological actions |
|------------------|--|
| Nyagrodha | Anti-inflammatory Antioxidant Antibacterial Antidiabetic Antihelmintic Immunomodulatory Ameliorative |
| Udumbara | Hepatoprotective Hypoglycemic Antiseptic Vermicidal Antipyretic Latex – aphrodisiac |
| Ashwatha | Antimicrobial Antiulcer Hepatoprotective Antiparastic Anti-parkinson's anti –diabetic |
| Pareesha | Memory enhancer Antiulcer Antidiabetic cytotoxic |
| Plaksha | Hepatoprotective Anti – arthritic Anti – diabetic Anti –inflammatory |

Mode of action of panchakshiri in various disorders.**1. Yonigat strava**

Swetaastrava (Leucorrhea), Menorrhagia 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 *dushti* due to its *drava and sara guna*. ➡ This *Dushti Dosha* reaches in *Yoni and Garbhashaya* via *Apanavayu* ➡ *Yonigata sthanshanshaya, sanga and do Yonidushti* which ➡ leads to symptoms 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 Flavonoids** – 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*, *chaladhant*.^[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 vrana*

There are two types of *vrana*: - *Njavrana* and *Aganthuja varna*

Njavrana occurs due to deranged *dosha* due to their respective etiological factors, *Aganthuja vrana* occurs due to internal\ external injury due respective etiological factors or non-living objects.

Vrana have symptoms of *Shotha*, *Vedana*, *Ruja*, *Strava*, *Jwara*, *Twaka vaivarnya*. After *vrana utpatti* if *apathya* is done lead to *prakop of dosha* in excess amount which leads to *Dushta-vrana*.^[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 *Vagbhata*, 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 dhusti*, 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, Sheet 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 *garbhastapan*, *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.

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