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DRUG REVIEW OF MRIDWEEKACHANDADI CHURNAM

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ABSTRACT

It is estimated that nearly 30% of women attending the Gynecology OPD are for Abnormal uterine bleeding (AUB). And the prevalence of menorrhagia is 33% out of AUB. Menorrhagia is defined as regular, cyclic bleeding with excess duration (>5 days) or excess amount (>80ml), or both. Menorrhagia may be correlated with *Asrigdara* in *Ayurveda*. *Shonithasthapana* (Heamostatics) is one of the integral parts of the management of menorrhagia. Here, *Mridweekachandanadi churna* mentioned in *Raktapitta Adhikarana* of *Bhavaprakasha* has been selected for the study. The ingredients were collected from a standardized manufacturing company and prepared as per the standardized methods. A research review of each of its ingredients was made. HTPLC and phyto chemical analysis was also done.

Keywords: menorrhagia, asrigdara, Mridweekachandanadi churnam

INTRODUCTION

It is estimated that nearly 30% of women attending the gynec OPD are for AUB¹. And the prevalence of menorrhagia is 33% out of AUB². Out of 6% of women aged 25 - 44 years with excess menstrual blood loss, 60% are said to undergo a hysterectomy in the next 5 years³. Menorrhagia is defined as regular, cyclic bleeding with excess duration (>5 days) or excess amount (>80ml), or both. Menorrhagia may be correlated with *Asrigdara* in *Ayurveda*. *Sonithasthapana* (Heamostatics) is one of the integral parts of the management of menorrhagia. *Charakacharya* has opined that the treatment principles of *Raktapitta* (bleeding disorders), *Raktatisara*, and *Rakta arsas* need to be followed in <u>Asrigdhara (pradeerana of asrik = excessive flow of blood). Though several *Raktastambhaka* drugs are available in the texts, they have not been researched to assess their effectiveness in *Asrigdhara*. Thus, re-evaluation of facts and the craving for further research will persist till the disease exists. Here, *Mridweekachandanadi churna* mentioned in *Raktapitta Adhikarana* of *Bhavaprakasha* has been selected for the study.</u>

Sloka :

मृद्रीकां चन्दनं लोध्रं प्रियन्गुच विचूर्णयेत् । चूर्णमेतत्पिबेत्क्षौद्रवासारससमन्वितम् । नासिकामुखपायुभ्यो योनिमेढ्रादिवेगितम् । रक्तपित्तं स्रवद् हन्ति सिद्ध एष प्रयोगराट् ।

यच्च शस्त्रक्षतेनैव रक्तं तिष्ठति वेगत: । तदप्येतेन चूर्णेन तिष्ठत्येवावचूर्णितम् ।

Bh.P. U. Ch.9

- 1. Mridweeka
- 2. Lodhra
- 3. Chandana
- 4. Priyangu
- 5. Vasa

The verse says that the *Churna* (powder) form of the first four ingredients in equal quantity, taken along with *Vasa swarasam* and honey is the best to mitigate bleeding disorders of the nose, mouth, anus, penis & vagina. If the *Churna* is spilled over a cut wound that is bleeding, then the bleeding will be arrested immediately.

Methods and materials:-

The ingredients of *Mridweekachandanadi churnam* were purchased from an authorized drug dealer, washed, dried, crushed, and made into fine powder at Kerala samajam factory, till '*vastragalitha* (sieved through cloth)' is attained. It is then stored in airtight packets of 12 gm each. *Vasa swarasa* (juice of leaves) preparation maybe educated to the subjects (through steaming the leaves) & the amount is measured appropriately using a measuring cup i.e 48ml. The *Churnam* is advised to be taken with this *Swarasa* and 6ml of honey, twice daily after food.

a. Dosage form- Churnam

- b. **Dose** 12gm (1 *karsha*) *Churna* with 48ml *swarasa*+6ml honey, twice after food.
- c. **Dosing schedule** Twice daily after food.
- a) Vehicle Vasa swarasa and honey.

A. <u>Draksha</u>⁴

Botanical name: Vitis vinifera Family: Vitaceae Kula: Drakshakula Gana: – Charaka - Kanthya, Virechanopoga, Kasahara, Sramahara - Susruta - Parushakadi gana -Vagbhata - Parushakadi gana Synonyms: Mridvika, Gostani Vernacular names Hindi: Angur Kannada: Drakshe Telungu: Draksha Malayalam: Munthiri English: Grape **Part used:** *Phala*(fruit) Ayurveda properties - Rasapanchaka

Rasa: Madura kashaya Guna: Guru, Snigdha, Mrudu Virya: Sita Vipaka:Madhura

Karma (Action):

Doshakarma: Vatapittasamana

Rogagnakarma: Brmhana, Vrshya, Chakshushya, Virechanopaga, Ruchya, Swaryam, Jwaraghnam, Mutrala, Saraka, Kamalahara, Kshayaghna, Raktapittaghna

Properties: Antioxidant, antihypertensive, antiproliferative, antithrombogenic.

Chemical constituents

Fruit: Catechin, Epicatechin, Beta sitosterol, Ergosterol, Jasmonic acid, Vit C, Anto cyanin, Phenolic acid, Poly phenol,

| Dose | |
|--------------------------------|---------------|
| Curna | 10 - 20gms |
| Swarasa | 20 - 50 ml |
| Arishta | 5 - 10ml |
| Properties like sara, bhedini, | sramsanam pre |

Properties like *sara, bhedini, sramsanam* prevents unwanted clot formation in menstrual blood. *Kshayagnam* indicates it is a *Santharpanajanya*

Daga

dravya as it reduces the *Raktadhadhu kshayam*. *Rakta pittagnam* and *Vatarakta nasanam* shows it cures the vitiated *vata*, *pitta* and *rakta*. *Kamala hara* property indicates a normal blood flow and decreases the incidence of *Panduroga* as the liver is the *moolastana* of *Raktavaha srotas*. Studies prove that Polyphenols present in *draksha* increase and regularize the hormones in the female reproductive system.

B. <u>Chandana⁵</u>:

Botanical name: Santalum album Family: Santalaceae

Gana – charaka : Dahaprashamana, Angamarda prashamana, Trishnanigrahan, varnya, vishaghna, kandughna Susruta: salasaradi, sarivadi, patoladi, pryangvadi, Guduchyadi Vagbhata: asanadi, patolaadi, sarivaadi, priyangvadi, Guduchyadi

Vernacular names:

Hindi – safed chandan,

English; sandalwood,

Malayalam - chandana

Synonyms: Gandhasaara, Srikhanda, Bhadrashriya

Chemical constituents: oil contains alpha santalols, beta sentence, santenol, teresantalol, nor-tricycloekasantalal; Other parts contain santalic acid, nocacosanol, and plamitone.

Ayurvedic Properties:

Rasa – Tikta, madhura Guna – Laghu, ruksha Virya – shita Vipaka - katu Indications: Daha, raktapittaghna, trishna har

Doshakarma: Kapha pitta shamaka

Parts used: Heartwood

Important formulations: *Chandanasavam, chan- danadi taila*.

C. <u>Lodhra⁶</u>

Botanical name : Symplocos racemosa Roxb. Family: Symplocaceae Gana –Charaka: Shonitasthapana, Sandhaniya, Purishasangrahaniya, Kashayaskandha Susruta: Lodhradi, Nyagrodhadi.

Vernacular names Hindi: Lodhra Malayalam: Pachotti Telugu: lodhuga Tamil: Belli lethi Kannada: Pacchettu English: Lodh tree Synonyms: sthulavalkala Chemical constituents: Bark contains Loturine, Colloturine, Loturidine, and glycoside. **Properties**: Rasa: kashaya Guna: laghu, ruksha Virya: katu Vipaka: sheeta Indications: Raktasthamban. Raktapittanashak, atisaara nashak, raktashodhaka, shothahara. (B.P) Doshakarma: Kapha pitta shamaka **Parts used**: Bark **Important formulations**: Lodhrasavam D. **Priyangu⁷:**

Botanical name: Callicarpa macrophylla Family: Verbanaceae Gana charaka: *Mutravirajaniya*, purishasangrahaniya Susruta: priyangvaadi, anjanaadi Vernacular names: Hindi: priyangu Malayalam : chimpompil English: largeleaf beauty berry Kannada: Pachettu Marathi: Lodhra Synonyms: Gandhaphali, shyama, phalini, kantha Chemical constituents: Root contains volatile oil, and Gandhapriyangu contains hydrocyanic salt. The plant contains phytoconstituents like triterpenoid saponin, B-sitesterol, flavanol, glycoside, rhamnetin, arabinogalactan which aids in the antiallergic and anti-inflammatory properties of the plant. **Ayurvedic Properties**:

Rasa : Tikta, kashaya, madhura Guna: Guru, ruksha Virya: sheeta

Vipaka: katu

Indications: *Raktaatisara*, *moha-daha vimarshini*, *jwara hara*, *chardhi hara*, *Udriktam rakta prashamana*. (*Dh. Nighantu*)

Doshakarma: Kapha pitta shamaka

Parts used: Flower

Important formulations: Priyangwadi thaila

E. $\underline{\text{Vasa}^8:-}$

Botanical name: Adhatoda vasica Family: Acanthaceae

Vernacular names:

Hindi: adoosa,

English : Malabar nut,

Malayalam : aadalodakam

Telugu: Aadasara

Synonyms: Aatarushaka, vrisha, vajidanta, simhaasya

Chemical constituents: Vasicine, adhatodic acid **Ayurvedic Properties**:

Rasa – Tikta, kashaya

Guna – Laghu, ruksha Virya – sheeta Vipaka – katu Indications: hridya, trithara, arthi hara, shwasa hara, kasa hara, jwara hara, chardi hara meha hara, kushta hara, kshayapaha (Bh.Pr); Raktapitta hara (Vr.Madhava)

Doshakarma: *Kapha Pitta shamaka* **Parts used**: root, leaves, flower

Important formulations: *Vasarishtam, vasavaleha, vasaguduchyadi ks*

Results and discussion: -

Probable mode of action of Drug:

All the ingredients of *Mridweekachandanadi churnam* are *shita virya* (coolant), and hence are *pitta shamana* in nature. The dominant *pitta dosha* in *asrigdara* will be kept under control with this drug. All the drugs are also *Raktapitta hara* in nature, depicting their specific action in this disease and thereby *Asrigdara*. *Lodhra* and *priyangu* find their mentioned in the *Shonitasthapana Mahakashaya* by *charaka acharya*, which also depicts their action as hemostatic drugs. And also, *Acharya Susruta* has mentioned *Lodhra* and *priyangu* under *Shonitasthapana prayogas* in the chapter *shonitavarnaneeyam*.

Lodhra is mentioned in lodhradi gana, pittanashaka gana, and Nyagrodhadi gana, which are respectively kapha hara, pitta hara, and pitta rakta hara. Privangu is mentioned in pittanashaka gana and Priyanguvadi gana which are both pitta hara in nature. Similarly, draksha finds its mentioning in the sramahara group & virechanopaga Mahakashāvas by Charaka Acharya, which showcases its action as a super drug to subside *fatigueness*, and as said by Kashyapa Acharya that 'garbhashayasriji vireka', so being a virechanopaga dravya, it helps in Asrigdara. Draksha is also mentioned in Parushakadi gana by Vagbhata acharya. Chandana is kept under Angamarda prashamana, trishna nigrahana, daha prashamana Mahakashayas by Charaka Acharya, which clearly indicates its action as pitta hara and which keeps fatigueness under check, angamarda being the clinical feature of Asrigdara. Chandana is also mentioned in asanadi gana, priyangvadi gana, patoladi gana and sarivadi gana which are kapha hara, pitta hara, kapha - pitta hara and pitta - rakta hara respectively. Vasa is mentioned as uttama raktapitta hara in agrya oushada by Charaka Acharya, which tells about its supremacy in this disease.

The drugs in the formulation are thikta-kashaya rasa pradhana, thereby pacifying pitta and kapha, and all the drugs are katu vipaka, thereby pacifying kapha, by virya all are *sita virya* thereby highly pacifying pitta and in effect acting as Raktasthapana. Hence Mridweekachandanadi churnam may work well to decrease the kapha pitta dosha and thereby reduce the amount of bleeding and the number of clots, in a controlled manner. As per a research study⁹ on the action of vasicine, it was seen that the maximum concentration of the drug was monitored in the uterus within 10 minutes of administration and was maintained for upto 30 minutes. This is in conformity with the pharmacological action of vasicine in its onset, duration, and manifestation of selective tonic action on the uterus. Accumulation of the drug in other smooth and skeletal muscles was noticed 90 min after administration. There was no appreciable accumulation of the drug in the liver. It is noteworthy that vasicine is very selective in its action and accumulation

in the uterus. Here in this formulation, though vasa are used as an anupana, it is used in sufficient quantity (48ml) to exert its action. As per a study¹⁰, the ethanolic extracts of Symplocos racemosa exhibited hypolipidemic activity, and hepatoprotective activity, and restored the depleted liver antioxidants. It significantly reduced the testosterone level which was found to be elevated in PCOS induced by letrozole in rats. It significantly restored the levels of estrogen, progesterone, and cholesterol. It also significantly stimulated serum FSH and LH levels. In short, lodhra has the ability to keep the hormonal levels under check and also monitored the peripheral estrogen activity by correcting liver dysfunctions, thereby the hormonal imbalance induced menorrhagia can be controlled by lodhra. Lodhra is also grahi with its kashaya rasa and hence is a good hemostatic drug. In another study¹¹ on **Vitis vinifera** & Chicorium intvbus, the inhibition of brain lipid peroxidation by the extracts was found to be highly significant (p<0.001) at the selected doses and was comparable to the standard drug. On the basis of the results, it was concluded that Vitis vinifera possesses potential antistress activity. Thereby Vitis vinifera has got the potential to pacify tiredness commonly seen in menorrhagia patients. As per another study¹², Vitis vinifera is a proven drug to increase ferritin levels in the body, if given continuously for 20 days. As per a study¹³ Callicarpa macrophylla is a potent blood purifier, antipyretic, anti-burning, and anti-poisoning. Thus, it reduces inflammation-induced menorrhagia.

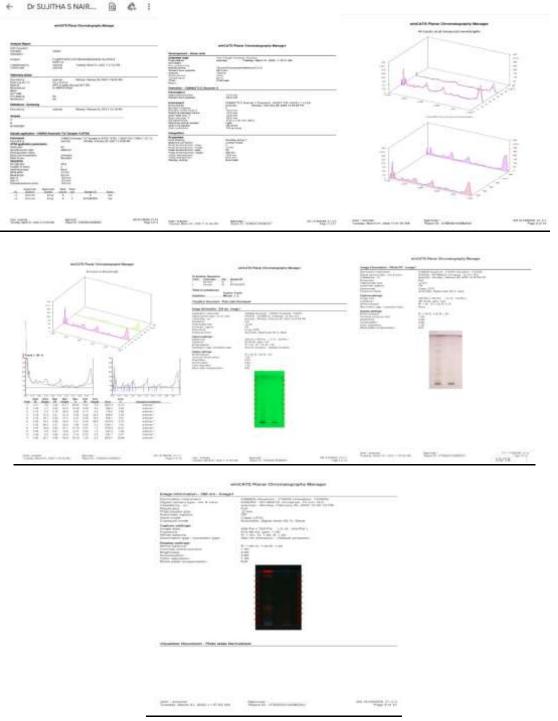
Madhu/ Honey has Sheeta Guna, having Madhura and Kashaya Rasa which are contradictory to the properties of Daha and Pitta. It is mentioned in Rakta Sthapana Mahakashaya and Sandhaniya Mahakashaya. Madhu contains lysozymes which lyse certain microorganisms, e.g., some Staphylococci and Gram-negative organisms, by breaking up cell walls & hygroscopic nature of Madhu (by the potassium content) withdraws the moisture from the bacteria. Due to these both properties, Madhu plays bactericidal action. Madhu can act as a Yogawahi dravya which means when used with other medicine it captures the properties of other medicine. Thus, it proves that it is a good blood purifier & adjuvant (enhances the properties of other medicines). Thus, the study drug mridweekachandanadi churnam is having the action of hemostasis, especially in a controlled manner. It is said in *yogaratnakara* that bleeding of any sort shouldn't be stopped at once as it may create other complications, which implies that a controlled way of achieving hemostasis seems more appropriate. The HTPLC study also showed significant spikes with the mixture of Mridweekachandanadi churnam and Vasa swarasam. And the phytochemical analysis specifies the presence of phenols, which are Haemostatic in nature.

CONCLUSION

Thus, *Mridweekachandanadi churnam* maybe considered a potential drug for bleeding disorders, especially menorrhagia.

| ABAA VALUEA AALA, AUTTAKAA | ANA KAIPYAANA AIIIYAANA | 6 |
|--------------------------------|-------------------------|---|
| | | |

Physiochemical analysis



HTPLC

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