A review on Pharmacological Action of Single Herbs in *Asrigdara* w.s.r. Abnormal Uterine Bleeding

Abstract

India is one of the nations blessed with a rich heritage of traditional medical systems and rich biodiversity. The recognized Indian Systems of Medicine are Ayurveda, Siddha and Unani, which use herbs and minerals in the formulations. In Ayurvedic system of medicine the treatment of various diseases like Gynecological disorders, Diabetes, cancer and hepatic disorder through herbal plants are pacing its way in today's era. India has 15 agro-climatic zones, 47000 plant species of which 15000 are reported to have medicinal properties varying degrees[1]. Due to change in lifestyle and diet pattern women are at a surge of suffering from various gynaecological disorders.

Single Herbs such as *Ashoka (Saraca Asoka), Udumbara (Ficus racemosa), Durva (Cynodon Dactylon), Kadall (Musa Paradisaca Linn.), Kanchnar (Bauhinia variegate) Gokshura (Tribulus Terrestris), Japa(Hibiscus rosa- sinensis), Vacha* (*Acorus calamus* Linn.) etc. can be used to treat *Bandhyatva (Infertility), Garbhadhan* (Pre–Conceptional Care), *Garbhasrava and Garbhpata* (Abortions And Miscarriages), *Pradara roga* (Abnormal Uterine Bleeding) and various other *Yonivyapad* (Gynecological Disorders) as mentioned by *Acharyas.*

In this paper Pharmacological actions of Single Herbs with special reference to various *Asrigdara* (Abnormal Uterine Bleeding) will be discussed.

Key words- Single Herbs, *Asrigdara,* Abnormal Uterine Bleeding

INTRODUCTION

"Excessive menstrual blood loss which interferes with a woman's physical, social, emotional, and/or material quality of life" is the definition of heavy menstrual bleeding (HMB), which is characterized by cyclic bleeding at regular intervals but bleeding that is either excessive in amount (>80 ml) or length (>8 days) or both.[2]

In Ayurveda, protracted, frequent, or severe menstrual bleeding is explained by the term "Asrigdara." Menstrual blood is impacted in both amount and quality in this kind of bleeding condition. The healthy state of the female reproductive system is indicated by a regular menstrual cycle. It is symptomatic of an underlying disorder when the cycle becomes abnormal, i.e., excessive and protracted bleeding, accompanied by discomfort or emerging at irregular intervals.

Heavy menstrual bleeding (HMB) is the focus of many studies, although the prevalence increases to 35% or more when irregular and intermenstrual bleeding are taken into account.[3]According to data from the World Health Organization, 18 million women between the ages of 30 and 55 think that their monthly bleeding is excessive.[4] Between menarche and menopause, 9 –14% of women are said to experience AUB. In every nation, the predominance is different. The reported incidence of AUB in India is 17.9%. Approximately 32.7% of Indian women who visit their clinic do so with AUB symptoms.[5]

87% of women reported having dysmenorrhea, 86% premenstrual syndrome, 72% abnormal menstrual flow, and 63% genital infections, according to the study. The average impact of gynecological issues on employed women is 56.13%. Women's social lives and professional performance are negatively impacted by these issues, with 76% perceiving them as moderate, 16% as severe, and 8% as mild.[6]

Numerous pharmacological activities including as anti – inflammatory, antispasmodic and heamostatic properties, can be found in single herbs. The underlying causes of abnormal uterine bleeding may be addressed with the aid of these measures.

This paper will examine the following: *Udumbara* (Ficus racemosa – Gular), *Lodhra* (Symplocos racemosa - Lodh), *Shunthi* **(** Zingiber officinale - Adarak), *Priyangu* (Callicarpa Macrophylla Vahl., *Lajjalu (Mimosa pudica), Kadali* (Musa Paradisiaca L – Banana), *Kanchnar* (Bauhinia variegata – Kachanar), *Japa* (Hibiscus rosa-sinensis Linn – Gudahala), *Vasa* (Adhatoda Vasica) and *Musta* (Cyperus Rotundus)

Aims & Objectives

- To Encourage the use of Single Herbs in day to day treatment for the betterment of female

Materials and Methods

- Classical texts with their commentaries and other relevant texts of *Ayurveda* and allied subjects along with various published articles
- Compilation of various form of Single herbs used in *Prasuti Tantra Evum Stree Roga*

Observation

Single herbs used in *Asrigdara* (Abnormal Uterine Bleeding), organized by Botanical name, Family name, *Rasa Panchaka,* Part used, Chemical constituents, Therapeutic indications and Pharmacological actions are listed below:

Table No. 1 :- *Dravyas* arranged with their Pharmacological actions

S.No.	Single Herbs	Botanical name	Family name	*Rasa Panchaka*	Part Used	Chemical Constituents	Therapeutic indication	Pharmacological Actions
1.	***Udumbara***[7,8,9,10,11] (**Cluster Fig Tree)**	*Ficus Racemosa*	*Moraceae*	*Rasa – Kashaya Guna – Guru, Snigdha Virya – Sheeta Vipaka – Katu Dosha Karma- Pitta kapha hara*	Bark, Fruit, Latex	Esters of taraxasterol, β-sitosterol, Friedelin (F)	*Murcha , Chardi, Trishna, Pradara roga , Raktasrava*	Anti-inflammatory , Analgesic, Antioxidant activity
2.	***Lodhra***[12] **(Symploc**	Symplocos	*Styracea e*	*Rasa – Kashaya, Tikta*	Stem, Bark,	3-monoglucofu	*Raktasangrahan,R*	Anti-fibrinolytic activity,

	os Tree)	racemosa		*Guna – Laghu, Rooksha Virya – Sheeta Vipaka – Katu Dosha Karma- Kapha Pitta Hara*	Flower	ronoside of 7-methyl leucopelagon idin	*aktastha mbhak Raktasho dak, Shothahar*	Analgesic, Anti-inflammatory and Antioxidant
3.	***Shunth i***[13]	Zingiber officinale	Scitami neae	*Rasa:- Kashaya Guna:- Laghu, Snigdha Veerya:- Ushan Vipaka:- Madhura Dosha Karma– Kapha- vata shamak*	Rhizo me	β - Sesquiphella nderene	*Raktasho dak,Shula Prashama na*	Appetizer,Anti-Spasmodic, Anti-inflammatory
4.	***Priyang u***[14,15,16,17] **(Beauty berry)**	Callicarpa Macrophy lla Vahl.	Verbena ceae	*Rasa – Tikta, Kashaya, Madhura Guna – Laghu, Rooksha Virya – Sheeta Vipaka – Katu Dosha Karma- Tridosha shamaka*	Flower , Bark, Root	β-sitosterol, Oleanolic acid	*Jawar, Daha, Raktatisa r, Pradara roga , Raktasra va, Dorgand ya*	Anti-inflammatory activity - inhibits Phospholipase A2 Analgesic, Inhibits haemolytic activity

5.	***Lajjalu*[18, 19,20,21]**	*Mimosa pudica*		*Rasa-Kashaya, Tikta* *Guna- Laghu, Ruksha* *Veerya- Sheeta veerya* *Vipaka- Katu* *Karma– Kaph-pitta shamak*	Leaves	Beta Sitosterol inhibits prostaglandin PGE2 and PGI2[17],Alkaloids reduce the endometrial thickness[18] D-Pinitol inhibits COX2 interaction pathway[19]	*Raktapittashamak ,Raktasthambhak Raktashodak, Shothahar*	Anti-prostaglandin activity Anti-inflammatory activity Coagulation activity
6.	***Kadalli*[22 ,23,24,25]** ***(Banana)***	*Musa Paradisiaca*	*Musaceae*	*Rasa – Madhura* *Guna – Guru, Snigdha* *Virya – Sheeta* *Vipaka – Madhura* *Dosha Karma- Vata-pitta hara*	Tuber, Flower, Fruit, Stem	Stigmasterol, β-sitosterol (Phytosterol)	*Mootrakrichra, Raktapradara, Raktapitta*	Antioxidant activity**,** Antifungal, Antimenorrhagic actions
7.	***Kanchnar*[26,27,28,29, 30]** ***(Kachnar)***	*Bauhinia variegate*	*Caesalpinioideae*	*Rasa – Kashaya* *Guna – Laghu, Ruksha* *Virya – Sheeta* *Vipaka – Katu* *Dosha*	Stem, Bark, Flower	β-sitosterol, Saponins, Terpinoid	*Raktapradara, Pittasara*	Anti-inflammatory activity Antimicrobial, Antioxidant Effects

				Karma- Kapha-pitta hara				
8.	***Japa*[31,32,33] *(Hibiscus)***	*Hibiscus rosa-sinensis Linn*	*Malvaceae*	*Rasa – Kashaya, Tikta Guna – Laghu, Rooksha Virya – Sheeta Vipaka – Katu Dosha Karma- Kapha- pitta hara*	Leaf, Flower	β-sitosterol, Thiamine	*Raktasthambhak, Samgrahi, Raktapradara*	Anti-inflammatory , Analgesic, Antispasmodic
9.	***Vasa*[34,35,36] (Malabar Nut)**	Adhatoda vasica	Acanthaceae	*Rasa – Tikta, Kashaya Guna – LAghu, Rooksha Virya – Sheeta Vipaka – Katu Dosha Karma- Kapha pitta hara*	Leaf, Root, Flower, Whole plant	β-sitosterol, Vasicine, kaempferol, 3-sophoroside, luteolin	*Raktapitta*	Anti-inflammatory, Anti-bacterial Activity
10.	***Musta*[37, 38,39,40,41] (Nut Grass)**	Cyperus Rotundus	Cyperaceae	*Rasa – Tikta, Katu, Kashaya Guna – Laghu, Rooksha Virya – Sheeta Vipaka – Katu Dosha Karma- Kapha- pitta hara*	Tuber	β-sitosterol, cyperlone, Mustakone, Sugenol, isocyperol, isokobusone	*Raktaprashadana, Sangrahaka*	Anti - Inflammatory Activity, Anti Oxidant property

11.	***Khadira*** ***42,43,44,45, 46*** **(Cutch Tree)**	Acacia catechu	Mimoso ideaea	*Rasa – Tikta, Kashya Guna – Laghu, Rooksha Virya – Sheeta Vipaka – Katu Dosha Karma- Kapha- pitta hara*	Stem Bark, Heart wood, Flowers	β-sitosterol, oleanolic acid and its glycoside, oleanolicacid-3- (-neohesperidoside along with sitosterol, sesquiterpenes - a- cyperone, cyperene, Bselinine and cyperenone (tubers); luteolin and aureusidin	*Raktapitta, Ruchivardhaka, Stambhana, Shonitastapana*	Anti- Inflammatory haemostatic,

DISCUSSION[47,48,49]

Research on women whose menstrual bleeding is objectively evaluated to be heavy but normal has repeatedly shown that higher levels of local inflammation are linked to higher levels of blood loss during menstruation. In vivo, plant extracts containing β-sitosterol and Stigmasterol demonstrated strong anti-inflammatory and immunomodulatory properties. It was able to guarantee the suppression of cyclooxygenase-2 (COX-2) and the reduction of pro-inflammatory cytokines, nitric oxide (NO), and tumor necrosis factor-α (TNF-α) release. The menstrual effluent of women with HMB exhibited a substantial elevation of the proinflammatory cytokine TNF-α. Prostaglandin signaling was elevated in HMB due to an increase in COX-2, an enzyme involved in prostaglandin production. During menstruation, significant and protracted tissue

damage may arise from the ensuing exacerbated inflammation within the endometrium. Therefore, treating women who experience abnormal uterine bleeding may benefit from limiting the generation of inflammatory mediators.

CONCLUSION

One prevalent type of *Artavvikara* is *Asrigdara*, which is characterized by severe and prolonged uterine bleeding. The use of hormone therapy and analgesics in modern treatment has drawbacks, adverse effects, and increases the risk of illness recurrence. Many herbal and polyherbal compound medications from *Ayurveda* are helpful in managing *Asrigdara* and its associated symptoms and consequences. Plants have been utilized as herbal remedies for a wide range of illnesses. Many herbal treatments contain concentrated flower or leaf extract. All of these individual herbs are easily accessible and used by natural health practitioners for Menorrhagia, Uterine bleeding management, Contraception etc.

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