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Analytical Analysis of *Shatapushpa* Described in *Kashyapasamhita*: A Review

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Abstract **– Shatapushpa is one of the most important & a widely used herbal drug in various female disorders. It is the most useful, popular, important ayurvedic medicines for woman since ancient times. Ayurveda describes the tridosha siddhanta which originated and developed from the principles of panchamahabhootas. From these principles, the ideas of dosha – dhatu-mala were integrated after a study of the human body. Thus the science of dosha – dhatu-mala developed basic principles of this science like the principle of samanya - vishesha which based on dravya. In Kashyapasamhita maharshi kashyapa described the very wonder drug shatapushpa in kalpasthana under the heading of shatapushpa shatawari kalpadhyaya. In present era, because of change in life style, food habit, workload, women faces lots of stress and strain. This ultimately causes influence on hormones causing disorders related to reproductive organs. Various research studies at present reveal many major chemical constituent present in this drug are useful as described by maharshi kashyapa.**

Keywords **– Ayurveda, Shatapushpa, Tridoshasiddhanta, Panchamahabhoota, Kashyapasamhita.**

I. INTRODUCTION

In classical texts two satahva (shatapushpa and Madhurika) have been mentioned. Shatapushpa is now equated with Sowa and Madhurika with Foeniculum vulgare Mill.

Habitat-Throughout tropical and subtropical region of India and cultivated. Anethum genus is found in Europe.

A. graviolens Linn. is native to Mediterranean Europe. A. sowa Roxb. ex. Flem. (Indian dill, sowa) is found in cooler climates throughout the Indian subcontinent. It is considered synonymous with A. graviolens Linn.

Regional language names (Dill) Eng: Indian dill fruit, beng: Suva, Sulpha, Sowa. Guj: Suva, Hin: Soya, Sova, Mar: Badishep, Shepa, Shepu, Punj: Soya, Tam: Satakuppa, Tel: Sadapa, Urdu: Shibt, Soya.

Kashyapa describes the properties and action and of the drug in general as well as in female disorders as follows-It is madhura in rasa (sweet taste), brumhaniya (anabolic) and balya (health pramoting), increases pushti, varna and jatharagni (promotes health, complexion and increases digestive fire), it is rutupravartani (initiates artava and bijotsarga i.e. ovulation), yonivishodhana (cleaning and purity of reproductive tract), It is ushna in veerya (hot potency) vataghna (pacifies vata) putraprada and veeryakari (improves sperm quality).

Kashyapa further highlighted the action of the drug especially on reproductive tract. He says the women who are amenorrhoec or has viphala artava i.e. anovulation , or which are suffering from menorrhagia, hypo-oligomenorrhoea, who achieved menopause, with various types of vaginal discharges, physically weak, whose offsprings are weak, women suffering from recurrent diarrhea, anemia, dry vagina, shatapushpa has excellent action on it. It is useful in infertility and shandha i.e. hermaphrodite. It means shatapushpa is very potential plant should be cultivated in large scale and utilized in various health issues of human being especially in female.

AIMS

To establish the therapeutic efficacy of the shatapushpa.

Objectives

1. To evaluate the significance of the drug in ayurvedic medicines and non-medicinal purposes and emphasis can also be given to the enhancement of secondary metabolites of this medicinal plant.

II. MATERIAL AND METHODS

Ayurvedic literature related to shatapushpa was searched. Books related to pharmacology of Ayurvedic drug, related research papers also searched for their chemical composition, mode of action. Other research journals, papers, books related to shatapushpa are also explored to collect the matter. Information regarding to gynecological disorders was collected from modern and Ayurvedic literature.

III. DISCUSSION AND RESULTS

Composition

Researches shows that the seeds (fresh weight) contains Water - 7.7, Calories - 305, Fat - 14.5, Carbohydrate - 55.2, Fiber - 21.1, Ash - 6.7 in grams per 100 g weight of food whereas Calcium - 1516, Phosphorus - 277, Iron - 16.3, Magnesium - 256, Sodium - 20, Potassium - 1186, Zinc - 5.2 Vitamin A - 53, Thiamine - 0.42, Riboflavin - 0.28 in milligram's per 100g weight of food.
The leaves (fresh weight) contains Water - 7.2, Calories - 253, Protein - 20, Fat - 4.4, Carbohydrate - 55.8, Fiber - 11.9, Ash - 12.6 whereas Calcium - 1784, Phosphorus - 543 Iron - 48.8 Magnesium - 451, Sodium - 208, Potassium - 3308, Zinc - 3.3, Thiamin - 0.42, Riboflavin - 0.28, Niacin - 2.8, Vitamin B6 - 1.5 in milligram's per 100g weight of food.

The proximate composition showed that root contained 5.29% ash, 2.01% protein, 54.09% crude fibre, 0.15% essential oil and 1.14% fatty oil for ho hot extract and 0.23% for cold extract. The palmitic (33.81 & 31.58%) and

linoleic acid (30.03 & 23.79%) were the major saturated and unsaturated fatty acids in the cold and hot extracted root powder respectively. Glutamic acid (19.37%), glycine (14.53%), and lysine (17.08%) were found as the major amino acids.

Chemical Composition

Essential oil - there is wide variation in the seed essential oils of different regions. Carvone is a major constituent (19.5% - 69.7%), dihydrocarvone (7.2% -14.3%), limoniene (9.0% - 34.4%), apiole (5.7% - 15.6%), alpha-pinene (5.0% - 7.3%), and alpha-terpene (3.6% -7.3%). Less variation is found in eugenol (3%), thymol (2.4%) and caryophylline (3.6%).

This herb consists of mono terpine such as carvone, limonine, and trans-anethole and some flavonids such as kaempferol and vecenin. Kaempferol, trans-anethole and limonine exhibit phyoestrogenic activity. The main action of phytoestrogen is due to their adaptogenic activity. They can be beneficial in both hyper estrogenic and hypo estrogenic state in the body. Thus they may have mixed estrogenic and anti-estrognic action depending on target tissue, that's why it works in amenorrhea and menorrhagia too as described by maharshi Kashyapa.

A second mechanism for action of phytoestrogen may be their ability to effect the endogenous production of estrogen. The pitutory gland releases gonadotrophins that stimulates estrogen synthesis in the ovaries. This may enhances ovulation and may be effective in the management of infertility. Presence of tanin are contributory to overcome the possible haemorrhagic or other discharges from yoni (vagina) which may be due to pelvic inflammatory disease.

It is a good source of calcium, dietary fibres, magnesium, iron. Also it contains arginine which prevents bone loss after menopause. Presence of phytoestrogen helps in the complications occurs due to deficiency of estrogen like dryness of vagina, osteoporosis, vaginal infections. Also the flavonides and group B vitamins helps in regulating the secretion of hormones and enzymes which pacifies the nervous system so effective in insomnia. Phytoestrogenes are attenuated estrogen and their estrogenic effect in postmenopausal women was established with the maturation of vaginal epithelium after dietary supplements with isoflavones and lignans. Because of their preference for binding to the beta form of the estrogen receptor (ER-b) phytoestrogens in women preferentially express estrogenic activities in central nervous system, blood vessels, bone and skin without causing stimulation of breast or uterus.

The essential oil when used topically enters the skin and reaches the blood stream and helps to increase complexion. Triterpenoids constituent suggesting there action of anabolism, weight promotion, improvement of agni. Also it is a rich source of carbohydrate which is very nutritive. So the herb is very useful in the women who are physically weak and anemic and if the nutrition in the mother is proper then definitely affects on the health of her offspring.

Aqueous extract of A. graviolens showed a broad spectrum antibacterial activity against S. aureus, E. coli, P. aeruginose, S. typhimurium, Shigella flexneri and salmonella typhi, antimicrobial activity against saccharomyces cerevisiae. It has antifungal and protective properties so can useful in diarrhea and the conditions which are due to inflammatory lesions. These properties may helpful in pelvic inflammatory diseases causing various types of vaginal discharges, menorrhagia as described in classics.

IV. Conclusion

After going through all the studies, it can be concluded that shatapushpa is useful in various female disorders described as in Kashyapasamhita. Along with these it is proved in various researches that it improves appetite, acts as analgesic, vermicide, digestive, useful in abdominal colic, intestinal colic, ophthalmic disorders. Maharshi Kashyapa describes that the preparations of sidhha shatapushpa are very useful when used in the form of nasya (nasal route), pana (oral route), snehan (oiliation), basti (medicated enema). Present research reveals many facts in evidence to support all the qualities described by maharshi Kashyapa about shatapushpa.

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