



A unique approach of phytoestrogenic ayurvedic drugs in prasuti tantra and stree roga

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Abstract

Woman's life is associated with drastic physiological, anatomical and psychological changes during menarche, reproductive period, pregnancy, menopause and post menopause. Because of these drastic changes women is in vulnerable state and constantly subjected to risks for developing many pathologies. In *Ayurvedic* system of medicine, there are various herbs & formulations are described by *Acharyas*, which can improve & cure gynaecological and obstetrics problems of female. All epochs of female reproductive health depend primarily on hormones, Phytoestrogens containing *Ayurvedic* drugs supplement which fulfil hormonal requirement and maintain their balance. Many *Ayurvedic* herbs like *Shatavari*, *Tila*, *Bala*, *Shatpushpa* etc. help in preventing and treating various gynaecological and obstetrical condition.

Keywords: phytoestrogen, *stree* and *prasuti roga*

Introduction

Now a day females were facing the gynaecological disorders due to excessive consumption of junk food, sedentary lifestyle, faulty dietary habits and also physical & mental stress because of work load. So that HPO axis gets impaired and disturbed hormonal balance. Hormones are key elements in female body as they play significant role in different physiological and emotional changes. Estrogen, Progesterone and Prolactin are the primary female hormones affecting women's health. Estrogen plays various role in the female, helps in develop and maintain both reproductive system and female characteristics, such as breasts and pubic hair and also contributes to cognitive health, bone health and cardiovascular system. Its deficiency leads to number of disorders in female. Phytoestrogens are plant derived substances that are structurally and functionally similar to estrogen.

Phytoestrogen

Phytoestrogens are plant-derived estrogens. Phytoestrogens are natural "selective estrogen receptor modulators" (SERMs). Phytoestrogens bind to the estrogen receptors, acting either as "partial agonists" or "antagonists", depending on the levels of endogenous estrogens. Phytoestrogens exhibit estrogenic activity in the order of 10-210-3 that of 17 β -estradiol, but may be present in the body in concentrations 100-fold higher than endogenous estrogens. Phytoestrogens have a higher binding affinity for β -estrogenic receptors than for α -estrogenic receptors. The majority of phytoestrogens found in plants can be classified into two major categories: isoflavones and lignans. After consumption of the plant lignans and isoflavone precursors, metabolic conversions occur in the gastrointestinal tract resulting in the formation of heterocyclic phenols that are similar in structure to estrogens [1].

Gynaecology

Premenstrual syndrome

cyclical and recurrent physical, emotional and behavioural symptoms that occur specifically in luteal phase. In *Ayurveda* PMS can correlate with *Pitta Avran Vyana Vayu* [2]. So, drugs like *Bala*, *Shatavari*, *Draksha*, *Madhuyasthi* can be used.

Bala are *Vata Shamaka* due to their *Snigdha*, *Pichchila Guna*, *Madhura Rasa* and *Madhura Vipaka* [3]. *Bala* contains phytoestrogens, which influences bone mineral density.

Madhuyasthi is *Vata Shamaka* shows anti-inflammatory, anti-arthritis and antioxidant properties and also contains phytoestrogen [4].

Anartava: term used absence of a period in a young women who hasn't started menstruating by age of sixteen caused due to *vata* imbalance. As *Acharya Sushrut* mentioned use of *Agneya dravya* as general principle of treatment [5].

Tila, *Shatpushpa*, *Masha*, *Lasuna* are *agneya* in nature mentioned in *Bhavprakash yoniroga* [6].

Here, *Tila* and *masha* contain lignans and *Shatpushpa* and *Lasuna* contain flavonoids, one of the group of phytoestrogens.

Tila taila: it is best among all *Tailas* for *Balvardhana* and *Snehana* [7]. It is *Vata Shamaka* due to its *Guru* and *Snigdha Guna*, *Madhura Rasa* and *Ushna Virya* [8].

Rasona: It is *Vata Shamaka* due to its *Snigdha*, *Pichchila* and *Guru Guna*, *Madhura* and *Lavana Rasa* and *Ushna Virya* [9].

Shatpushpa: its *Madhur rasa* and *Ushna virya* pacifies *Vata*. *Ruksha*, *Tikshna guna* removes the obstruction in *srotas*. It also shows *Anulomana karma* will cause "Doshanam Sanshosana" and facilitate the free movement of *Apana vayu* and helps in *Rajapravartan* and *yonishoola* [10].

Contraception: Contraception are method or devices used to prevent pregnancy.

Pippali and Vidang: According to *Acharya Yogratakara* and *Bhavprakash* women who take *Pippali* along with *Vidang* and tankan in equal quantity will never conceive [11].

Japa: Flower of Japa produce sterility in women due to its *Katu*, *Tikta rasa* and *Katu Vipaka* in nature. It contains flavonoids and saponins which are phytoestrogenic in nature [12].

Chitrak: it acts like abortifacient due to having *Katu rasa*, *Ushna Virya*, *Katu Vipaka* and *Ruksha Tikshna Guna*. It contains flavonoids and saponins [12].

Menopause: Menopause, also known as the climacteric, is the permanent loss of menstruation after amenorrhoea lasting more than 1 year due to loss of estrogen production by the ovaries. The menopause is a consequence of estrogen deficiency. In *Ayurveda* term *Rajonivritti* means end of *Artava Pravritti* or cessation of menstruation. *Rajonivritti* is *Swabhavika Vyadhi*, is a naturally occurring condition in every woman [13]. Factors like *Vridhdhavastha*, generalized *Dhatukshaya*, generalized *Rookshata* and *Shosha* will lead to *Vata Vriddhi*.

Decrease in estrogen levels is the most prominent reason for menopause related symptoms like hot flushes, insomnia, depression, dry vagina, urinary problems, etc.

In postmenopausal women, estrogen deficiency is a major risk factor for osteoporosis. The hormone replacement therapy (HRT) is proven for lowering the risk of cardiovascular disease and osteoporosis. Due to increased risk of certain types of cancers or contraindications in HRT, phytoestrogens may act as natural alternatives to HRT. A diet rich in phytoestrogens has been shown to be accompanied by an increase in bone mineral density (BMD) [14].

Tila taila: A study suggests that sesame ingestion benefits postmenopausal women by improving blood lipids, antioxidant status, and reproductive hormones.

Guduchi is *Vata Shamaka* due to its *Guru* and *Snigdha Guna* and *Ushana Virya*, it is well known *Rasayana* and has *Agni Deepana* effect. It contains ligan which is a form of phytoestrogen and it is an alternative therapy of HRT so effective in post-menopausal syndrome [15].

Shatavari: it is a hormone balancing herb along with anti-stress activity. Due to its *guru* and *snigdha* nature, it nourishes the female reproductive system. It minimises bone loss in menopausal and postmenopausal women. It is a phytoestrogenic rich herb contains Saponins and Flavonoids [15].

Obstetrics

Preconception care: Preconception care can be defined as the provision of biomedical, behavioural, and social health interventions to women and couples before conception. According to *Ayurvedic* principles for having physically, mentally (emotionally) and spiritually healthy progeny, the women and man must need to have proper conception care. Preconception care is one such preventive measure to get

Shreyasipraja, it helps in early identification of high-risk factors and prevents the adverse effect [16].

Tila taila: it is *Vataghna* and *kaphapiita prokapa* action due to its *rasa* and *virrya*. According to *Bhavprakasa*, *Tila taila* has the property of *Garbhashaya vishodhanam*, especially act on *Apanavata* which is responsible for normal functioning of reproductive organs [16].

Mahakalyana Ghrita: contains *Nagkeshar*, *Dadima phala tvak*, *Jati*, *Utpala* etc., drugs having property of *Vandyatvahara* and useful in *yoniroga*. Here, *Dadima* and *Nagkeshar* contain Isoflavones which act as phytoestrogen and increase rate of fertility.

Lactation

Shatavari (Asparagus recemosus): it improves the breast milk secretion by increasing the level of prolactin. Due to having *Guru*, *Snigdha* and *Vatashamak guna* it also relieves in postpartum symptoms like depression, constipation and excessive bleeding [17].

Vidarikanda: it pacifies *Vata*, *Pitta* and *Rakta dosha* and having *Balya*, *Stanya*, *Rasayan*, *Brihani* properties. Tuber of *Vidari* contain isoflavonoids show phytoestrogenic properties helps in increasing lactation [18].

Infertility: Infertility is defines as a failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse. *Ayurveda* defined *Vandhyatva* as failure to achieve successful pregnancy.

Shatavari: As *Acharya Kashyap* mentioned that *Shatavari* is congenial and brings menstruation and progeny. "... *Pathya pushpaprajakari*" [19].

Acharya Sushrut mentioned *Shatavari* is *Vrisya* (aphrodisiac) in nature which helps in conception.

Shatpushpa: *Katu rasa* helps in *Rutupravartan*, *Yonishukravishodhana*. *Ushna virya* works as *vatashamaka* [20].

Shatapushpa and *Shatavari* is a phytoestrogen, it exerts both estrogenic and antiestrogenic activity. It acts in both high oestrogenic and low oestrogenic condition. Thus, it increases the endometrial thickness.

Jeevaniya vati: *Jeevaniya Vati* has *Madhura Vipaka*, *Sheeta Virya*, *Madhura*, *Tikta Rasa*. So, the combined effect of all ingredients makes the drug *Vatapittashamaka*. Most of the drugs like *Shatavari*, *Yashtimadhu* of *Jeevaniya Vati* having phytoestrogenic properties while *Vidarikanda* has direct estrogenic property [21].

Narayana Taila: *Narayana taila* is *vatakapha shamak*. Drugs of *taila* have *Prajasthapana*, *Rasayana*, *Balya*, *Brimhaniya*, *Anulomana* and *Srotoshodhana* properties resulting in *Aampachana*, which may help in removing *Sanga* and *Avarana* leading to proper function of *vayu* may correct HPO axis regulating *beejagranthi karma* resulting in *beejautsarga* (ovulation) [22].

Discussion

Phytoestrogens are plant nutrients found in several different types of food such as soya products, grains, beans and some fruits and vegetables.

Hence, nowadays women are in search of a safe alternative medicine among which *Ayurveda* herbal remedies, dietary phytoestrogens and lifestyle modification such as Yoga & Pranayama have become the most preferred choices. Herbs containing phytoestrogens that mimics body hormones, reduces severity of gynaecological and obstetrical disorder. There is growing evidence that dietary phytoestrogens could have a role in prevention of estrogen-related cancers like breast cancer, prostate cancer etc., and also some beneficial effects regarding postmenopausal symptoms, osteoporosis and cardiovascular diseases. Many women turn to phytoestrogens as an alternative to hormone replacement therapy and estrogen replacement therapy because of their undesirable side effects.

Also, regular consuming of phytoestrogen during childhood have been linked to a decreased risk of breast cancer.

Conclusion

Use of natural products is preferred compared to synthetic as they are considered more in harmony with the human body. Diet like tofu, soyabean, nuts, flax seeds etc. also have phytoestrogenic action helps to synthesise natural estrogen in body. The estrogen in phytoestrogens are useful for bone, brain, blood and breast and endometrium. Hence, it reduces the risk of developing breast and endometrial carcinoma. *Ayurvedic* remedies are very helpful to treat diseased condition like breast cancer, ovarian cancer and infertility, because it contains natural phytoestrogen herbs. Thus, helps in improvement in Quality of life is seen due to modified physical, psychological, social and environmental factors.

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