



THE CLINICAL IMPORTANCE OF CHLOROPHYTUM BORIVILIANUM (WHITE MUSLI) IN OLIGOSPERMIA

Dipak Swain¹, K.B Mahapatra², Arun kumar Das³, Vivek Mahalwar⁴.

¹Department of kayachikitsa Gopabandhu Ayurveda Mahavidyalaya and Hospital ,Puri Odisha.

²Principal, H.O.D,& Prof., Department of Prasutitantra avam stree rog,GAM ,Puri, Odisha.

³HOD,&Prof, Department of Rasashastra& Bhaisajya kalpana, Gopabandhu ayurveda Mahavidyalaya Puri,Odisha.

⁴Department of Prasutitantra and Streeroga,Govert Ayurvedic College and Hospital ,Bilaspur,Chhattisgarh.

ABSTRACT

White Musli is a aphrodisiac drug. It has a natural biological environmental effect on neuro hormonal sexual axis. It maintains the equilibrium in mind and body. It reduces the sexual harassments like libido, impotency, infertility, and oligospermia. It increases sexual disireness , reduces fatigueness, maintains sexual satisfaction level, reduces the early ejaculation, increases sperm maturity, increases sperm number, increases sperm activity, reduces the oligospermia and infertility. It maintains the mental and physical equilibrium by homeostasis of blood include the regulation of temperature and the balance between acidity and alkalinity i.e ph balance of the body. Low sperm count lessthan 20million/ml is one of the cause for infertility.

Keywords: Aphrodisiac plants, herbal aphrodisiacs, white *musli*, spermatogenesis, oligospermia, infertility.

INTRODUCTION: Mental stress, work stress , lack of physical exercise, constant sitting habbit, lifestyle changes like late night food and sleep, sleep under sunlight i.e daytime sleep increases libido, oligospermia, infertility, impotency. Loss of libido, irrectile dysfunction, oligospermia, infertility, impotency is a major clinical condition for male. Psychosexual development in hormonal axis i.e, pituitary-gonadal axis is most important for development of healthy progeny. There are so many natural aphrodisiac substances available in classical texts and traditional practices induces sexual desire ,pleasure and reduces oligospermic activity.In recent study conducted in Gopabandhu ayurveda Mahavidyalaya ,Puri,india.men between the ages of 40 and 70 reported some

degree of sexual dysfunction , oligospermia, and infertility. Aphrodisiacs on the basis of mode of action classified into three types that increases sexual appetite; libido, increases sexual power ;potency, and sexual pleasure. There are so many folkler medicines of plant origin used for erectile dysfunction,infertility, oligospermia ,physical performance in men, among them very few have scientifically identified.Ambrein of Ambra grisea plant used for increasing libido in Arab countries. contains tricyclic triterpene alcohol acts on anterior pituitary ;releases several hormones and testosterone.In china Panax ginseng acts as an antioxidant ;enhances nitric acid synthesis in endothelium of corpora cavernosa; ginsenosides helps in trasmural nerve stimulation activated relaxation

associated with increased tissue cyclic guanosine monophosphate.

Infertility and oligospermia: Infertility means the failure of to become pregnancy after one year of regular, unprotected intercourse of a couple.[1,2] One third of infertility is due to female infertility, another third are due to male infertility, and remains due to both partners or due to unknown cause.[3] More than 90% of male infertility patients are due to low sperm counts; Oligospermia, or poor sperm quality i.e poor sperm motility, abnormal sperm shape or both. Seminiferous tubules in testicles produces sperm. sperm head contains DNA ,when it combines with ovums DNA ,fertilization occurs to produce new offspring. Acrosome ,the sperm head penetrate the ovum. Middle portion of the sperm contains mitochondria , supply energy to tail for movement. And the sperm moves like whip-like movement towards ovum inside the uterus and fallopian tube for fertilization.[4]

3, Spermatogenesis or the production of sperm regulated by complex system of organs and hormones. The initiation of process starts in the area of brain called the hypothalamus-pituitary axis, the chemical messengers neurotransmitters, hormones and system of glands maintain a integrity for reproduction. GnRH in hypothalamus prompts to pituitary gland for secretion of follicle stimulating hormone (FSH) and luteinizing hormone(LH)[4]. FSH helps in sperm production, and LH stimulates to produce testosterone. Testosterone and sperm production occurs in testicles or testes in the scrotal sac, present outside the body as the internal body temperature is too high to allow sperm production. In this process the seminiferous tubules stimulated through

FSH , produces the sperm and Leydig cells produce the testosterone through luteinizing hormone[4].

Oligospermia is consider when the sperm count is less than 20 million/ml[2].

Herbal aphrodisiacs: The medicines for libido, impotency, infertility, oligospermia, which increases sexual disireness , reduces fatigueness, maintains sexual satisfaction level, reduces the early ejaculation, increases sperm maturity, increases sperm number, increases sperm activity, reduces the oligospermia and infertility are called as aphrodisiacs.[5,6,7,8,10,] There are so many herbal aphrodisiacs found in classical text under “vrisya[9,10]”. They are classified on the basi of pharmacological action.

A. Helps in increase of spermatogenesis : sukra janana Spermatogenic medicines are Banana, Badam, Musli, Amalaki, cows ghee,Tribulus terrestris, Sesame seeds, Allium cepa, Marking nut seeds and cow's milk.

B. Helps to maintain the health, wealth of sperm, prevents early ejaculation of semen: *sukra sthambhaka*.

The medicines in this group are Nutmeg, Areca nut, Symplocos racemosus, Hedychium spicatum, Cyperus rotundus, Cardamom , Sandal wood, Messua ferrae, Shalmali niryasa – Resin of Shalmali-Shalmalia malabarica

C. Helps to attain sexual disireness for expultion of semen: *sukra rechaka*. Fruits of Solanum nigrum, Banana, Asperagus recemosa, cow's milk, Seeds of Asteracanthus longifolia, Indian liquorice, Sugar candy, Sida Cordifolia, Ipomea tuberosa, Boerhavia diffusa.

D. Helps in improvement of semen quality (number, shape, and volume) :*sukra vardhak*.

Sida cardifolia, Curculigo orchioides, Asparagus racemosa, Mucuna pruritus, Black gram, White onion, Goose berry, Sugar candy, Indian liquorice etc.

E. Helps in improvement of sperm motility, activity and strength :sukra balya. Sida cardifolia, Abutilon indicum, Asparagus racemosus,Withania somnifera, Tribulus terrestris, Mucuna pruritus, Black gram, Indian liquorice etc.

F. Helps to increase of sexual willingness ,loss of libido, erectile dysfunction :*sukra uttejaka* Black gram, Drum stick, Sugar candy, Butter, Ghee, Mucuna pruritus, Clove, Betel leaf etc.

G. helps to decrease of sexual aggressiveness,abnormal sexual manners: *sukra hrasaka*.

Horse gram, Bitter gourd, Caricus carandus,Holy basil,Commiphora mukul, Borax etc,kshara preparations,stress, night awakening, addictions, few of the cosmetics, colouring agents and preservatives reduces the sperm count[10].

White musli (chlorophytum borivillianum):

Among the herbal aphrodisiacs the white musli is considered as best because of it psychosomatic,antistress, adaptogenic, aphrodisiac action[10]. It have an natural biological environmental effect on neuro hormonal sexual axis.It maintains the equilibrium in mind and body.It reduces the sexual harassments like libido, impotency, infertility, and oligospermia.It increases sexual disireness , reduces fatigueness, maintains sexual satisfaction level, reduces the early ejaculation, increases sperm maturity, increases sperm number, increases sperm activity, reduces the oligospermia and infertility. It maintains the mental and physical equilibrium by homeostasis of blood

include the regulation of temperature and the balance between acidity and alkalinity i.e ph balance of the body. It reduces the weakness after sexual attachment. The change of environment of body before and after sexual excitement, intercourse and seminal discharge comes to normal state without weakness. It maintains and increases the long duration attachment and satisfaction level. It increases the fertility chance within one year of regular sexual intercourse. it prevents the ageing process by maintaining antioxidant levels ,hormonal levels,vitamins levels , nutritional levels ,ph levels and adaptogenic to change in biological environment [5,10].

Pharmacology of white musli:

Botanical Name: *chlorophytum borivillianum*

Sanskrit Name: *sweta musli*

Properties of white musli

Rasa: sweet, Bitter

Guna: Moist, Unctuous

Virya: sheeta(cold)

Vipaka: *Madhura*(sweet)

The above pharmacological properties of the white musli shows that it maintains a cooling environment on body in all dimentions.[7]

Chemical composition of white musli :

The root of white *musli* is consider for medicinal use. The chemical analysis was done in Regional center of central tuber crops research institute, under Indian council of agricultural research, Bhubaneswar .white *Musli* dry extract 50%,on analysis it contain saponins 12-17%,stigmasterol 1.9-3.5% , sugars like arabinose 0.79%, Galactose3.80%, glucose0.78%, rhamnose0.78%, xylose 0.76%,carbohydrates like reducing sugar 20-25%, non-reducing sugar 15-17%,protein 8-8.5% as major constituents.

The saponins, stigmasterol, and the sugars are expected to be the aphrodisiacs for sexual life.

CONCLUSION: It is concluded that the herbal aphrodisiac white musli, (*Chlorophytum borovillianum*) is the best among the aphrodisiacs because of its zero side effects, multidirectional sexual benefits. It may treat different clinical conditions like sexual harassments like libido, impotency, infertility, and oligospermia. It increases sexual desire, reduces fatigueness, maintains sexual satisfaction level, reduces the early ejaculation, increases sperm maturity, . The change of environment of body before and after sexual excitement, intercourse and seminal discharge comes to normal state without weakness. It maintains and increases the long duration attachment and satisfaction level. It increases the fertility chance within one year of regular sexual intercourse. It prevents the ageing process by maintaining antioxidant levels, hormonal levels, vitamins levels, nutritional levels, ph levels and adaptogenic to change in biological environment. The complex system of hypothalamus-pituitary-gonadal axis is maintained by the system of glands, hormones, and chemical messengers called neurotransmitters which are critical for reproduction.

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Corresponding Author: Dr. Dipak Swain, Department of Kayachikitsa Gopabandhu Ayurveda Mahavidyalaya and Hospital, Puri Odisha.

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