



Review Article

UTILITY OF VAJIKARANA IN GENERAL HEALTH- A REVIEW

Anusree Dileep^{1*}, Sreelekshmi.S², Vandana Rani.M³, Delvin.T.Robin⁴, Meera.S⁵

¹Associate Professor, ²PG Scholar, ³Professor and Head of the Department, ⁴Associate Professor, ⁵Assistant Professor, Department of Swasthavritta, (Social and Preventive Medicine), Amrita School of Ayurveda, Amritapuri, Amrita Vishwa Vidyapeetham, India.

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hormones.

ABSTRACT

Objective: *Vajikarana* or *Vrishya chikitsa* is the branch of Ayurveda dealing with reproductive health and virility. Though this branch makes use of drugs under the category of aphrodisiac, the multifaceted effect of those is under explored. The properties of disease prevention and restoration might be the attribute benefited in sexual health too. This paper intends to explore the general health benefits of *Vajikarana* drugs.

Data source: The data related to the aphrodisiac drugs are located in classical texts of Ayurveda and online journals with keywords "*Vajikarana*, Ayurveda, aphrodisiacs, neuro-endocrine immune system, *Vrishya chikitsa*, *Ojas* and sex hormones". The relevant scripts were selected and appropriate data from 8 articles and 18 chapters were extracted for the final manuscript construction.

Results: The drugs like *Ashwangadha*, *Satavari*, *Atmagupta*, *Sweta musali* and *Masha* proved to have neuro-endocrinological effects, psycho-neuro-immunological effects, anti-inflammatory and anti-oxidant properties apart from aphrodisiac effects. It stabilizes *Tridosha*, *Saptadathu* and eventually *Ojas*, and calms mental faculties.

Conclusion: The proper use of the *Vajikarana* formulations imparts qualities like good physique, potency, strength and complexion. The benefits of *Vajikarana* can be incorporated into other health conditions also. The practice of *Vajikarana* corrects the deformities of reproductive systems and in turn balances other body functions. Advanced research on the health benefits and enhancing sexual potency of women should be carried out on *Vajikarana* therapy. This will aid prevention of diseases which is a major health standpoint in the current day scenario.

INTRODUCTION

Ayurveda has classified facets of its treatment into eight major branches. *Vajikarana* is one of these eight limbs of Ayurveda. Though enumerated last, it has prime importance in maintaining and enriching the virility of a man. The whole branch, also known as *Vrishya chikitsa*, concentrates on improving the sexual potency by medications, especially aphrodisiac drugs that can improve the quality of semen and improve the health of progeny.

The benefits of *Vajikarana* therapy are multifaceted. Treatment of common sexual disorders and promotion of sexual health are the common benefits of *Vajikarana* therapy. In addition to the above, the practice of *Vajikarana* therapy will also benefit disease prevention and health promotion in normal healthy individuals. A person's health is the state of their body and the point to which it is free from illness. The concept of the practice of *Vajikarana* for general wellbeing is not seen much in practice and it needs further research and more scientific explanation. The utility of *Vajikarana* drugs in general health need to be explored.

Methodology

Classical text books of Ayurveda such as *Ashtanga Hridaya*, *Charaka Samhita*, *Susrutha Samhita*, *Ashtanga Samgraha*, *Kashyapa Samhita* and *Bhavaprakasha* was reviewed to analyze the concept of *Vajikarana*. Databases such as PubMed, Google Scholar,

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Science direct etc. were searched using the keywords like *Vajikarana*, Ayurveda, aphrodisiacs, neuro-

endocrine immune system, *Vrishya chikitsa*, *Ojas* and sex hormones.

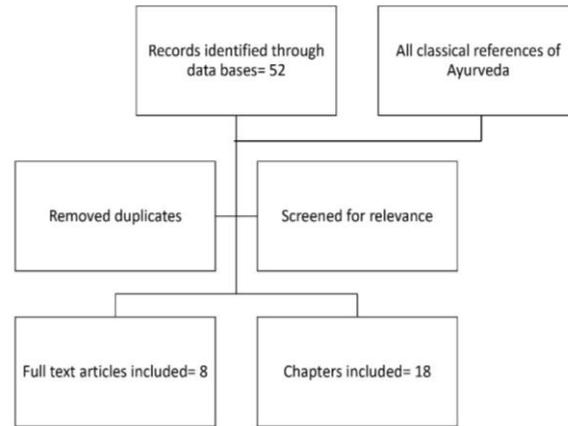


Figure 1: Methodology

***Vajikarana* in Ayurveda, its importance and application**

The word *Vajikarana* is an agglomeration of two words, *Vaji* and *Karana*. The meaning of *Vaji* is horse, usually used as a symbol of sexual potency and *Karana* denotes power. The practice of *Vajikarana* formulations makes a person endowed with good physique, potency, strength, complexion and sexually strong as that of an eight year old horse.^[1]

According to Ayurveda, the treatment or medicine which makes the man capable of strength as that of a horse (a symbol for sexual potency), and which imparts nourishment to the body is known as *Vajikarana*. It acts as the greatest promoter of strength and vigour.^[2] The therapy as a whole imparts contentment, nourishment, continuity of progeny and boundless happiness. Sexuality and reproduction which are the two major components for a healthy life of an individual get enhanced. A man having numerous progenies is like one who has plentiful forms of actions and knowledge. In addition to the benefits on the reproductive system, individual quality and longevity of life increase.^[3] Simultaneously physical and physiological health of the individual is also improved.^[4] Along with these, *Vajikarana* therapy rectifies the condition of erectile dysfunction by increasing the period of erections, preventing premature ejaculations, enabling to produce healthy offspring, providing stimulation for sexual activity, reducing tiredness after cohabitation, bringing prosperity, strength and auspiciousness to individuals, and imparting willpower, memory and intellect to the individual.^[5]

General health- Basic Concepts in Ayurveda

Ayurveda explains the concept of health as the equilibrium of *Dosha*, *Dhatu*, *Mala* and the balance of self, sense organs and mind. This is similar to that which is derived by the World Health Organization as a state of complete physical, mental and social well-

being and not merely the absence of disease or infirmity. The concept of general health can thus be easily explained by detailing the basic concepts of these components which stabilize the wellbeing.

Tridosha^[6]

The concept of *Tridosha* is related to physiological regulation through the unified functioning of the *Doshas* namely *Vata*, *Pita* and *Kapha*. Essentially *Dosha* plays a vital role in maintaining health and manifestation of diseases. The fundamental goal behind Ayurveda treatment modality is to create or to generate the harmonious state of the above three components.

Saptadhatu

Food materials which are composed of *Pancha mahabhuta* (five basic elements) on digestion divide into two forms, *Ahara prasada bhaga* and *Kittabhaga*, *Ahara prasada bhaga* or the substantial part transforms into *Saptadhatu* (seven constructive tissues of the body). These seven elements are essential for the growth and sustainability of the body. The formation of *Dhatu* takes place in a sequential manner. The first element *Rasa* transforms into *Raktha*, *Rakta* to *Mamsa*, *Mamsa* to *Medas*, *Medas* to *Asthi*, *Asthi* to *Majja*, *Majja* to *Sukla*.^[7]

Ojas

The end product of a proper sequential metabolism of seven *Dhatu* is *Ojas*. The *Kapha dosha* at its normal state is also expressed as *Ojas*. It is correlated to the inherent immunity of the body and is the first component appearing in intrauterine life. This element which is superior among all sites of vitality imparts strength to the body and mind.^[8,9,10,11]

The drugs used for *Vajikarana*, by its virtue, stabilizes these basic components of well-being and promote health.

Classical Reference and Mode of Administration

All classical textbooks of Ayurveda detail *Vajikaran* and its effectiveness in sexual health. It follows a particular pattern of administration for enhanced efficacy.

The drugs used for *Vajikarana* possess the attributes of *Madhura* (sweet), *Snigdha* (unctuous), *Jeevaniya* (invigorating), *Brimhana* (bulk forming), *Guru* (heavy to digest) and one which causes *Harsha* (excitement).^[12] The individual aged between 20 and 70 years and those who are suffering from impotence, those who indulge in recurrent sexual activity or those who have a diminished production of *Shukra* (semen) shall undergo this therapy. Individuals below or beyond the age limit, Person who lack control over their sense organs, and those who have impotency of hereditary or traumatic origin are forbidden in undergoing these procedures.^[13]

Before the administration of *Vajikarana*^[14], the individual should undergo certain preoperative procedures such as *Sodhana* (purification) to attain maximum benefits from the therapy. When the body channels are occupied with the toxic element called *Ama*, the medicine will not work properly. So, the person planning to undergo *Vajikarana chikitsa* should be subjected to *Sneha*, *Sweda*, *Asthapana* and *Anuvasana Vasti*. After purifying the body, *Vajikarana* recipes are enriched with milk, meat soup, boiled rice along with ghee, sugar and honey.^[15] This will improve the overall health and quality of *Shukra dhathu*.

Certain food and regimen should be practiced and few should be avoided during the therapy. Emotional imbalance should be restricted and the person should refrain from excessively using sour, salty and pungent food, and incompatible food.

Formulations ^[16,17,18]

There is one chapter each for *Vajikarana* in *Susrutha Samhitha* and *Ashtanga Hridaya* while Acharya Charaka has one elaborated version dedicating four chapters for *Vajikarana*.

Table 1: Summary of Charaka Samhitha

S.no	Name of the chapter	Number of formulations
1	<i>Samyogasaramuleeyam</i>	15
2	<i>Asikthaksheereeyam</i>	8
3	<i>Mashaparniprabhruteeyam</i>	15
4	<i>Pumanjatabaladhikam</i>	12

Table 2: Formulations from Ashtanga Hridaya

S.no	Name of chapter	Number of formulations
1	<i>Vajikaranam</i>	13

Table 3: Formulations from Susrutha Samhita

S.no	Name of chapter	Number of formulations
1	<i>Ksinabaliyam vajikarana chikitsitam</i>	15

General health benefits of selected Vajikarana drugs

Vajikarana is a distinctive category of *Rasayana* (rejuvenate therapy), having anti-stress and adaptogenic properties. *Vajikarana* drugs act inside the body by regulating the neuro-endocrine-immune system.^[19] It was noted that most of the *Vajikarana* drugs have a general health promoting profile apart from their action in enhancing sexual potency. Thus, the use of these can be adopted for general well-being.

Ashwagandha (Withania Somnifera)

Ashwagandha (Withania Somnifera) is a widely used herb as a nervine tonic. The root of *Ashwagandha* possesses the qualities like aphrodisiac, diuretic, tonic and stimulant properties. *Ashwagandha* is a powerful adaptogen and upturns the body's suppleness towards stress. The body's defense mechanism against diseases is improved by refining cell mediated immunity.^[20]

Atmagupta (Mucuna Pruriens)

Atmagupta (Mucuna pruriens) is a well-known medicinal plant that is mainly used for the treatment of parkinsonism. Active ingredient present in the plant is L-dopa which is responsible for the therapeutic benefits.^[21] *M. pruriens* showed a great anti-oxidant potential and free radical scavenging activity.^[22]

Shweta Musli (Chlorophytum Borivilianum)

Shweta Musli (Chlorophytum borivilianum) possesses anti-inflammatory and anti-oxidant activity.^[23]

Masha (Vigna Mungo)

Masha (Vigna Mungo) is a traditional medicinal plant used for the treatment of a variety of conditions. The immuno stimulatory effect of *Masha* was evaluated using an animal model. Induction of immunostimulatory effect was analyzed by parameters such as Sheep Red Blood Cells (SRBC) induced humoral antibody titer, SRBC induced delayed-type hypersensitivity, neutrophil adhesion and in vivo phagocytosis after host treatment with the extract. The results here indicated that primary and secondary antibody titers in the rats were significantly increased by treatment with the *V. mungo* extract as compared with those noted among rats in a control group. The apparent immunostimulatory effect of the *V. mungo* seed extract might be attributed to an augmentation of humoral and cell-mediated responses, phagocytosis, and hematopoiesis in the treated rats. The findings in this study suggest that *V. mungo* seed extract possesses profound immunostimulatory activities.^[24]

Apart from these formulations, which are mentioned for improving sexual the potency of males, single drugs are mentioned in *Kashyapa Samhita* for enhancing female reproductive health.^[25]

Table 4: drugs for female reproductive health

S.no	Name of drug	Properties	Indications
1	<i>Satavari</i>	<i>Seetaveerya, Snigdha, Kashaya, Madhurarasa, Vrishya, Rasayana</i>	<i>Vandhyatwam</i> Frigid women
2	<i>Satapushpa</i>	<i>Madhura rasa, Brimhana, Balyam, Rithu pravarthini</i>	<i>Vandhaya</i> <i>Shanda</i>
3	<i>Lashuna</i>	<i>Katurasa (seed), Lavana, Tikta (stem), Kashaya (leaves), Madhura Vipaka, Brimhana</i>	<i>Vandhyatwa</i>

- **Satapushpa (*Anethum Sowa*):** Enhances female health by acting on the reproductive system. Phytoestrogens present in the drug effectively prevent menopausal complications such as hot flush, vaginitis, anxiety and osteoporosis.^[26]
- **Satavari (*Asparagus Racemosus*):** The drug regulates the serum calcium level and exerts a beneficial effect in preventing osteoporosis.^[27]
- **Lashuna (*Allium sattivum*):** It possesses anti-oxidant property and Allicin present in the drug increases blood supply to the reproductive system.^[28]

DISCUSSION

Utility of *Vajikarana* in Health

The benefits of *Vajikarana* can be utilized in many conditions. A better comprehension of the basic concepts of Ayurveda like the concept of *Tridosha*, *Saptadhatu* and *Ojas* will be necessary before initiating a discussion on the health aspects of *Vajikarana*.

When coitus is performed daily without taking *Vajikarana dravyas*, it leads to vitiation of *Tridosha* and progressive pathological changes like loss of compactness of muscles, looseness of joints, vitiation of *Rakta* (blood tissue), excessive production of *Meda* (fatty tissue), failure of production of *Sukra* (reproductive tissues) and deprivation of *Ojas* (Vital factor).^[29] This process leads to the formation of *akalaja jara* (untimely aging). Aging which occurs untimely can be prevented by following the rules of *Swasthavritta* (preventive and social medicine). *Dinacharya* (daily regimen), *Ratricharya* (night regimen) and *Ritucharya* (seasonal regimen) must be complied with to maintain health.^[30] By the application of *Vajikarana* therapy, untimely ageing as well as general health can be maintained. *Ojas* is known as the essence of *Saptadhatu* (body tissues) susceptible of strength, vigor and vitality.^[31] *Ojas* is circulated all over the body with *Rasa* and *Rakta dhatus* through specialized channels of circulation called *Ojovaha sira*. *Abhigata* (traumatic injury), *Dhyana* (excessive thinking), *Kshaya* (malnourishment), *Kopa* (anger) leads to vitiation of *Ojas*.^[32] *Ojas* play a definite role in the pathogenesis of diseases like *Prameha*, *Mritbhakshanajanya pandu*.^[32,33] Present-day

researches portray the concept of *Ojas* to *Bala* (strength) or *Vyadhikshamatwa* (immunity).^[34] *Ojas* is also mentioned as a part of vitamins, albumins, internal secretions of testicles, and ovaries.^[35] So, *Ojas*, when vitiated can result in immune-compromised conditions and several other disorders.

Vajikarana dravya administered after *Sodhana* therapy nourishes the *Saptadhatu* because of the *Brimhana* and *Jivana* property. *Sodhana kriyas* eliminate the *Ama* (toxic materials) from *Srotas* (body channels), balances *Dosha* and *Agni*. When the *Dosha* and *Agni* are functioning in the right way, *Dhatus* get nourished leading to the formation of *Ojas* in its pure way. This can bring immunity and the absence of infirmities.

Mode of Action

The probable mode of action of *Vajikarana* can be described based on the combined effect of *Poorvakarma* and *Vajikarana dravyas* on *dhatu*. *Sodhana* makes the body and *Srotas* free from the accumulated toxic material called *Ama*. In a person where homeostasis of *Tridosha* is disturbed, anabolism and catabolism will be compromised and it leads to inadequate functioning of excretory organs. Accumulation of morbid matters leads to defective nutrition and immunity. *Sodhana* plays a significant role in expelling the morbid matters out from the body and thus the free radicals are expelled eventually leading the system to normalcy. *Jataragni* (digestive fire) is increased and *Doshas* are balanced.^[36] *Vajikarana dravyas* given after the *Sodhana* with *Jeevaniya*, *Brimhana Guna* nourishes the body tissues. The nourished *Dhatu* presents with functions like *Preenana*, *Jeevana* etc. *Ojas*, the quintessential part of *Sapta dhatu* will reach its optimal stage and prevents the recurrence of diseases and promotes health. *Vajikarana dravyas* are administered only after *Sodhana* procedures.^[37] *Ritusodhana* is a preventive *Panchakarma* modality meant to eliminate the seasonally aggravated *Doshas*. *Vamana*, *Virechana* and *Basti* are mentioned during *Vasantha*, *Sharad* and *Varsha ritu* respectively.^[38] *Vajikarana dravya* provided after *Ritu sodhana* therapies will be more effective.

The mind also plays an important role in getting the benefits of the *Vajikarana* on the entire body. During the entire process of this therapy, the mind should be kept free from stress and worries. Once when the body channels are free from toxic accumulation, the mind is also cleared and the *Brimhana* and *Jeevaniya* properties of medicines will reflect on maintaining health. The drugs used for *Vajikarana* are found to be having a neuro-endocrinological effects, psycho-neuro-immunological effects, anti-inflammatory and anti-oxidant properties.

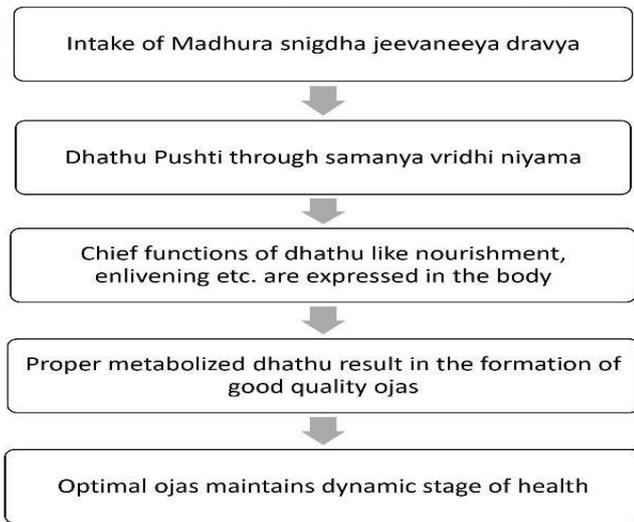


Figure 2: mode of action of *Vajikarana* drugs

Modern perspective of *Ojas* and virility

Sex Hormones and Their Impact on Different Body Systems

Androgens (testosterone) and Estrogens (estradiol) are the primary sex hormones. Both the hormones are mainly derived from progestins or pregnenolone via dehydroepiandrosterone, androstenedione, and androstenediol, which are formed from cholesterol upon stimulation by Adrenocorticotropic Hormone (ACTH). Sex hormones differ in their site of origin and quantity.^[39] The activity of steroid hormones is mediated through receptors on extracellular proteins.

Effects on Musculoskeletal System

Sex steroids influence the maintenance and growth of muscles. A decline in Androgen, Progesterone and Estrogen by aging leads to loss of muscle mass and Sarcopenia.^[40] Estrogen interacts with Calcitonin, Parathyroid hormone, vitamin D and interleukin. Estrogen stimulates the growth and division of skin cells, connective tissue and mucosal membrane.

Effects on Cardiovascular System

Estrogen exerts a beneficial effect on the cardiovascular system like prevention of vasoconstriction, platelet aggregation and production of Prostacyclin.^[40] Estrogen plays a protective effect in women of the reproductive period.^[41] Low incidence of

cardiovascular diseases like stroke, atherosclerosis and hypertension could be due to the protective effect of estrogen on endothelial function.

Effect on Central Nervous System

Sex hormones influence mood, cognitive function, pain and opioid sensitivity through receptors present in the presynaptic terminals, mitochondria and postsynaptic dendrites.^[42]

Effect on Immune System

The immune, endocrine and central nervous systems are integrated through a network of hormones, cytokines and neurotransmitters. As a result of this interaction, sex hormones supplement their effects on the development and function of the immune system.^[43] The number of immune cells is increased by the influence of sex steroids. Estrogen and progesterone are the key regulators of the immune system. Sex hormones also create sexual dimorphism where females exhibit a greater immune response.^[44]

The practice of *Vajikarana* alters the deformities of the reproductive system which in turn balances other body functions.^[45] The use of *Vajikarana* drugs with anti-oxidant, anti-inflammatory, immunomodulatory properties employ their effect on diverse body systems and thus maintains the general health of individuals.

Women Perspectives

Women were considered as a *Vajikarana dravya* (aphrodisiac). In *Kashyapa Samhita* few formulations were described for the health of the reproductive system of women. They should be encouraged to practice the *Sodhana* procedures and use of *Vajikarana* formulations in their reproductive age to ensure the health of off springs. Studies conducted on drugs like *Shatavari* and *Satapushpa* showed the presence of phytoestrogens with a beneficial effect on hyper and hypoestrogenic states. Consumption of phytoestrogen rich food in the daily diet (in the form of *Satavari panaka* or *Lashuna ksheerapaka*) will boon female health especially in post-menopausal complications and prevents the adverse effects arising from hormone replacement therapy. As advancements in science, it is necessary to explore these areas of research and formulate drugs that maintain and enhance the reproductive health of women.

CONCLUSION

To achieve all the objects of human pursuit- *Dharma* (moral values), *Artha* (economic values), *Kama* (psychological values), *Moksha* (liberation) health is considered as the primary tool. Ayurveda aims to preserve and promote health along with the prevention and cure of ailments. *Vajikarana* or *Vrishya chikitsa* is one of the eight specialties of Ayurveda. The specific branch of Ayurveda mainly focuses on

aphrodisiacs, virility and improving the health of progeny. The proper use of the *Vajikarana* formulations imparts qualities like good physique, potency, strength and complexion. The benefits of *Vajikarana* can be incorporated into other health conditions also. The practice of *Vajikarana* formulations which is administered after *Sneha*, *Sweda* and *Vasti* balances the *Agni*, *Tridosha* and *Saptadhatu*. *Ojas*, which is considered a vital factor, is responsible for the development and maintenance of the body, is enhanced by the practice of *Vajikarana* formulations. Modern research studies show that sex hormones exert their effects on other body systems. The practice of *Vajikarana* corrects the deformities of reproductive systems and in turn balances other body functions.

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***Address for correspondence**

Dr. Anusree Dileep

Associate Professor,
PG Department of Swasthavritta,
(Social and Preventive Medicine),
Amrita School of Ayurveda,
Amritapuri, Amrita Vishwa
Vidyapeetham, India.

Email: dranusree15@gmail.com

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