“EFFICACY OF VIDARIKANDA CHURNA IN KLAIBYA IN RELATION TO ERECTILE DYSFUNCTION”.

ABSTRACT-

Klaibya is mentioned as one among the shukrapradoshaja vikara with “sankalpapravano nityam priyaam vashyamapi streeyam, Mlana shishnata, Nirbeejaha”, as clinical features mentioned in Charaka samhita. Both shareerika and manasika bhavas play a major role in the manifestation of Klaibya. This concept is subjectively accepted as Erectile Dysfunction (ED). Sexual health and function are important determinants of quality of life. proper penile erection is essential for a man’s identity, self-esteem and wellbeing with significant impact on his partner.

The description available in classical text books about klaibya is limited and scattered. the drug vidarikanda is mentioned as one among the vrushya dravya. it is having madhura rasa, guru snigdha guna, sheeta veerya, madhura vipaka and it is vatapittashamaka. the main action of vidarikanda is vrushya, balya, and rasayana. considering these factors this study is intended to compile and analyse
literature regarding klaibya and to evaluate the efficacy of vidarikannda choorna in management of klaibya (erectile dysfunction).

KEYWORDS- Klaibya , Erectile Dysfunction ,Ayurveda Chikista , Vidarikannda Choorna

INTRODUCTION
Ayurveda, the ancient health system originated in India in the prehistoric period still exists even after facing many challenges from the altering of various periods till now. all the concepts and theories of ayurveda are time tested and written after in depth analysis and close scrutiny by our ancient acharyas. even though all factors in ayurveda are so authentic, the challenges faced by science in the modern day, demands thorough revalidation of the ancient principle and procedures of ayurveda. It is necessary to make the system more suitable for the modern life.

sex is the integral part of one’s life. sex or sexuality is neither a forbidden thing nor a vulgarity to avoid. it is considered as the basic instinct of all the creatures particularly human beings. the third purushartha of life kama, which refers to emotional being of man, his feeling and desires. the prime duty of man is to procreate and so the first and foremost intention of sexual intercourse is to continue the species. Along with that the people of opposite sex will get engaged in sexual relationship for the purpose of enjoying sexual pleasure which serve as a bond of love and passion between two partners psychologically, leading to a healthy status of family. in this way sex appears to play a major role in the maintenance of family and species. among the various phases of sexual response the most essential is the achieving of normal erection with sufficient rigidity for penetrative intercourse, the absence of which ends into failure and
dissatisfaction. This condition has been elaborately described as 'klaibya' in ayurvedic classics and 'erectile dysfunction' (ED) in modern texts. Sharira, indriya, manas, constitute general body and prakruti, all the three being the instruments for self. For the functioning of manas all the trigunas, rajas (stimulation), tamas (stability), satva (self-determination, control) are essential. The very essential mode of sexual arousal response and act are said to be under the influence of this triguna model. Any of the basic dysfunctions or disequilibrium of the working mode of either stimulation or stability and self-control is definitely going to hamper the socio-behavioral functioning capacity of an individual with reference to sexuality. Triguna of manas in individuality or in combination can strike off the sexual congress. However any of accidental outbreak of sexual impairment due to other factors can, in turn inhibits the further process of stimulation or loss of selfdetermination. Hence manas here are acting as a cause or as an effect in genesis of klaibya. Kama, krodha, bhaya etc are the vikaras which inhibit or over exhaust the limit of particular sexual act, mediated through manas. The incidence of ED is also higher among men with certain medical disorders such as diabetes mellitus, heart disease, hypertension and decreased HDL levels.

Smoking is a risk factor in the development of ED. Medications used to treat diabetes or cardiovascular diseases are additional risk factors. There is a higher incidence of ED among men who have undergone radiation or surgery for prostate cancer and in those with a lower spinal cord injury; Psychological causes of ED include depression, anger or stress from unemployment or other causes.

Further the incidence of erectile dysfunction is increasing day by day with the increase in the incidence of diabetes, hypertension, peripheral vascular disorders, peripheral neuropathy, anxiety, stress, depression and their medications. It is also increasing due to the change in the life style and the increased addictions particularly smoking.
Though both, nonsurgical and surgical treatments are in practice for the management of ED, but each of them is having its own limitations and demerits. The nonsurgical treatment are having poor efficacy with systemic and local side effects. The surgical treatments are associated with complications, change in the shape of the penis and they are unaffordable by the common people. Hence both of them are having poor acceptance in the society. After knowing the burning nature with higher incidence of the problem and the limitations of the available medications, it is the need of time to find out an effective, safe and affordable therapy to manage this troublesome problem.

In ayurveda, we may find a ray of light as it is having unique approach to understand and manage the disease. Further in case of management also it is having unique way to treat the suffering not only by means of palliative treatments, but also by special treatment branch called vaajikarana, it’s aimed at improving the sexual life and also for acquiring quality progeny. Vajikarana dravyas very much highlighted and praised in the context of klaibya to overcome the aggravated vata, in the present study vajikarana dravyas selected in the form of vidarikanda choorna. Vajikarana has been described specially to improve the sexual health to enhance the status of shukra and to please the mind. Hence, vidarikanda choorna which is having vrushya property is selected for orally administered.

**MATERIALS AND METHODS**

All aspects of klaibya, shukra, shukra dosha are addressed in our classics. Charaka Samhita (C.S) mentioned eight types of shukra doshas in Sutrasthana 19th chapter, Ashthodareeya adyaya. Shukra dhatu kshaya lakshana in Sutrasthana 17th chapter Kiyantashirasheeya adyaya.
Klaibya is mentioned as a disease caused by vitiated shukra dhatu in charaka samhita sutrasthana 28th chapter, vividhashitapitya adhyaya\(^3\) different types of napumsakas are mentioned in sharirasthana 2nd chapter\(^4\).

Klaibya hetus, bhedhas, lakshanas, sadyasadyata is mentioned in charaka sanhita 30th chapter, yonyapay chikitsitadhyaya \(^5\).

the detailed description of shukra is available with references regarding shukrakshaya and shukrapradosha vikaras. sushruta mentioned, shukra dosha occurs due to vyana and apana vayu prakopa in vatavyadi nidana adyaya \(^6\).

**CLASSIFICATION OF KLAIBYA**

*According to acharya charak*-  
1. Bijopaghataja  
2. Dhvajabhangaja  
3. Shukraksayaja  
4. Jarasambhavaja

*According to acharya sushruta-*  
1. Manasa  
2. PumsatvaUpaghataja  
3. Sukraksayaja  
4. Saumya dhatuksayaja  
5. Sahaja  
6. Sthira shukranimittaja

**Bijopaghataja Klaibya**

It is caused by the diminution of shukra; the shukra gets vitiated and diminished in quantity. chakrapani explains that it is due to prakrita vayu kshaya leading to deficient production of bija thus leading to the presentation of bijopaghataja klaibya. the person will loose his bala and may also suffer from diseases like pandu, kamala etc\(^7\).
Dhwajabhangaja Klaibya
Any change in the structure or integrity of an organ is bhanga. dhwaja is used to denote mehana or penis. the condition is characterized by involvement of the penile dr. nagarajagouda malipatil 2014 organ suggestive of local affliction of penis, be it infection or wounds and the lakshanas of this resembles upadamsha mentioned by sushruta ⁸ a,b,c.

Jaraja Klaibya
This is caused due to the depletion of rasadi dhatus which naturally occurs in old age or due to intake of avrishya ahara⁹.

Kshayaja/Shukra kshyaja Klaibya
It is caused by the diminution of shukra. charaka explains due to nidana like ruksha annapana, anashana, asatmya bhojana, chinta, shoka, krodha the rasa dhau undergoes depletion. Subsequently there is anuloma kshaya of all dhatus until Shukra. Sushruta explains, it occurs when a person do excess sexual acts in paralance with his strength without taking vajikarana dravyas like milk, ghee etc¹⁰,¹¹.

Sahaja Klaibya
It occurs by birth i.e. it includes congenital factors responsible for Klaibya¹².

Manasika Klaibya
It is due to disinterest towards the female partner. this may be due to mistrust, unattractiveness of female, due to disease in the female partner¹³.

Soumya dhatu kshayaja/ pittaja
It is caused by diminution of Saumya dhaatu due to excessive intake of diet which has pungent, sour, hot and salty taste¹⁴.
- **Skukrastambhaja Klaibya**
  It occurs due to mental agitation and following celibacy which results in not focusing towards sexual gratification that ultimately results in Ghanatva of Shukra\(^{15}\).

- **Marma chedaja klaibya**
  It occurs due to injury to the sexual organ or the vital structures of reproduction, which will have a direct bearing on the functioning of the organ\(^{16}\).

1. **Linga Shaithilya**: Flaccidity of the penis even after psychic or physical stimulation
2. **Mlana Shishnata**: Lack of Rigidity of Penis
3. **Nirbija**: Absence of sperms or Lack of ejaculation
4. **Mogha Sankalpa Cesta**: Futile sexual activity
5. **Dhvaja anuchraya**: Lack of erection
6. **Suratashaktata**: Incapability to perform sexual act.

The common associated symptoms are as follows:
1. **Svasatrha** (Breathlessness / tachypnoea)
2. **Svinn Gatrata** (Profuse swelling)

B) The Vishesha laksanas are described according to the individual type of klaiby, these symptoms are classified into four categories viz. vataprapakopajanya, shukrakshayajanya, dhatukshayajanya and anya\(^{17}\).

**Samprapti Ghataka**

**Dosha**: Sharirika-Tridosha, Manas- raja and tamas

**Dushya**: Rasa to Shukra

**Agni**: Jatharagni, Rasa dhatvagni, Shukra dhatvagni

**Ama**: Jatharagni janya

**Srotas**: Rasavaha, Shukravaha, Manovaha

**Sroto dushti prakara**: Sanga, Atipravritti, Vimargagamana, Siragranthi
Udbhava sthana: Amashaya, Hridaya  
Sancharasthana: Sarvasharira, vrishana-shepa  
Vyakta sthana: Sarvasharira, vrishana-shepa  
Adhishtana: Shukravaha sira  
Rogamarga: Bahya and Madyama  
Vyadhiprakara: Nija and Agantuja  
Roga swabhava: Ashukari, Chirakari,

SADHYASADHYATA
Sadhyā – Asadhya of Klaibya depends upon the causative factors. If Klaibya has occurred due to general cause (Dhatu kshaya) or Congenital (Sahaja, Bijadosha, Matapitru dosha) and local (Dhwajabhangaja, Sannipataja, Marmachedana, Shukradoshaja) are not curable and remaining others can be managed\(^{18,19,20}\).

According to Charaka, Dhwajabhangaja and Shukra kshayaja Klaibya are considered as Asadhya\(^{21}\).

According to Sushruta sahaja, Marma chedana, Medrarogaja Klaibya are asadhya and other varities like Manasa, Sthirashukraja and Shukra kshayaja Klaibya are Sadhya.

CHIKITSA
After understanding the disease and its prognosis, the appropriate measures can be adopted for better management. Acharyas have framed chikitsa principles based on the etiology involved in the causation of klaibya.

Acharya Charaka mentioned that the medicines mentioned for Shukra dosha and those mentioned for kshinakshata have to be used in Klaibya. He explains that Vrishya yogas, Rasayana yogas, Kshirasarpi and Basti prayoga have to be used for the treating Klibya after assessing Deha, Dosha, Agni, Balam\(^{22}\).
For better understanding, principles of treatment are explained under following headings:

- **Nidana parivarjana.**
- **Shodhana chikitsa:** Vamana, Virechana & Basti prayoga: Vrishya Yapana Basti and Uttara Basti.
- **Shamana Chikitsa:** Ksheera & Ghrita prayoga, Vajeekarana yogas
- **Rasayana Prayoga.**
- **PATHYAPATHYA**

Treatment procedure for any disease without the diet will not be complete. The diet drugs which are favorable to the body and mind and do not produce any adverse effects are considered as pathya and opposite to it are apathy.

- **PATHYA AHARA:**
  - Madhura, snigdha, gurugunatmaka
  - Narikelodaka, dugdha, navaneeta, kilata, piyusha,
  - Ghrita, taila, madhu, Ikshu, guda, madyaShali,
  - Masha, Godhuma
  - Mamsa
  - Amalaki, draksha, amra, priyala, kharjura, dadima.
  - Pippali, ardraka, patola, lashuna, palandu.
  - Shatavari, vidarikanda
PATHYA VIHARA:

- Sukha nidra, sukha shayya
- Moon light (Chandramsu)
- Pleasant Music
- Wearing beautiful garments
- Mitra mandali
- Beautiful garden
- Kamini youvana
- Sex as per season (Gramya dharma palana)

APATHYA AHARA:

- Katu, Lavana ahara.
- Takra, mastu,
- Atimadya,
- Lakucha.
- Kshara.

APATHYA VIHARA:

- Ratri jagarana,
- Ativyayama, shrama,
- vegadharana(Shukra)
- Brahmacharya (Forced celibery)
- Ativyavaya.
- Chinta.
- Bhaya.
- Dvesha.
- Shoka.
- Avishvasa.
- **MAITHUNA SAMBHANDHI APATHYA**

- Not following seasonal sex-rule.
- Not maintaining personal hygiene. (Medra Adhavana)
- Rajasvala gamana.
- Dusta yoni gamana.
- One should not withhold urges before having sex.
- Kanya gamana.
- Kara maithuna.
- Abnormal sex postures

**Drug details of vidarikanda**

**Vernacular name:**

Eng: Indian Kudzu  
Hindi: Vidarikand, Sural

**Rasa:** Madhura

**Guna:** Guru, Snigdha

**Vipaka:** Madhura

**Veerya:** Sheeta
Doshaghna karma:
VataPitta Shamaka

- **Chemical constituents:**
  - Beeta-Sitosterol,
  - Stigmasterol,
  - Diadzein,
  - Puerarin,
  - Tuberosin
  - Steroid saponin (disogenin)
  - Genistein

The tuber can be used for extraction of starch. Tubers contain, dry matter 85.1%, total carbohydrates 64.6%, crude fibre 28.4%, Crude protein 10.9%, and ether extract 0.5% and it also contains beeta-sitosterol, Sucrose, Glucose, Fructose have been identified. Chemical composition of vidarikanda are beeta-Sitosterol, Stigmasterol, Diadzein, Puerarin, Isoflavone C-glycoside-4, 6-diacetylte puerarin, Pteracarpanone hydroxy tuberosone, Pterocarpantuberosun, Steroid saponin(disogenin).

Gana and Varga:
The plant is included in various groups as per their properties and medicinal actions.
It is also included by the text as per their methods of classification in one of their groups. The list of groups of various texts that enlist vidarikanda.

**Guna and Karma (Properties and Action)**

Guna and Karma (Properties and action) form the most important factor of assessment Traditionally Vidarikanda is used as a reproductive tonic. But when analysed

- scientifically the reproductive tonic like activity is said to be due to Diazein, Puerarin, and Genistein has been shown to interact with androgen receptors and helps in the secretion of Testosteron hormone.
- Vidarikanda contains Diazein, Puerarin, and Genistein which acts as Antioxidants, Nueroprotector, Antidepresant and Anxiolytic activity. Puerarin also have the Antimicrobial property. Vidarikanda contains beeta-Sitosterol and Stigmasterol which acts as Androgenic and Hypolipidimic effect respectively.
- Vidarikanda contains Steroid saponin (disogenin) it reduces the level of serum cholesterol.
- Vidarikanda contains Tuberosin which acts as Antioxidant. By its antioxidant property of Tuberosin it secretes the Nitric oxide in penile tissue. Nitric oxide is chemical compound that plays a major role in male sexual function. An abundance of nitric oxide can improve circulation and lead to more frequent erections.
- Nitric oxide's mechanism of action is very simple. The inner-lining of blood vessels use nitric oxide to signal the surrounding smooth muscle to relax. This leads to vasodilatation (blood vessel dilation), and therefore increased blood flow. Increased blood flow can lead to more frequent erections.
respect to dravya guna. Properties from the constituents those are necessary to bring about actions. In ayurveda properties consist of panchalakshana Rasa, Guna, Veerya, Vipaka, & Prabhava. Properties of vidarkanda mentioned in various text.

◆ **Rogagnnata**:²⁴ shukra Kshaya, Shosha, Shukrameha, Stanya kshaya, Mootrakrichra, Prameha, Varna vikara, Pittvikara, Yakritvridhhi.

◆ **Therapeutic uses**:²⁴

◆ Vidari act as Balya, Vrishya and Rasayana. It is usefull medicine as is Aphrodisiac,

◆ Cordiotonic, Demilcent, Diuretic, and Tonic.

◆ It is used in Emaciated, Entric fever, and Spermatorrhea person.

The tubers are used in medium as a demulcent and refrigerant in fever as cataplasm for swellings of joints and as lactogogue.

Tubers are usefull in Prameha, Kushta, Upadamsha, Shukra kshaya, Impotency, general debility and other diseases.

**Parts used**: Roots.

**Dose**: Churna (Powder) 3-6 gm.

◆ Mode of action on kliabya –

The drug Vidarikanda is mentioned as one among the Vrushya dravya. It is having Madhura Rasa, Guru Snigdha guna, Sheeta Veerya, Madhura Vipaka and it is Vatapittashamaka.

◆ The main action of Vidarikanda is Vrushya, Balya, and Rasayana.

By its Vrushya property it acts on prajanana sanstana.
**Mode of administration of visarikanda churna in patient**-

3-6 gm churna with anupana.

After the administration of vidarikanda choorna, Ksheera were used as Anupana because properties of ksheer like madhura rasa, guru, snigdha guna, sheeta veerya and madhura vipaka and vata pitta hara dosha karma which is similar to qualities of shukra.

**MODE OF ACTION OF VIDARIKANDA**

Vidarikanda choorna is one of the most important Vajikara dravya explained in our classics. This action of drug is due to its properties like Guru, Snigdha guna, Madhura rasa, Madhura vipaka and Sheeta veerya. All the qualities are similar to that of shukra and there by causes its increase.

Vidarikanda improves digestion by increasing levels of amylase and lipase. Therefore by proper digestion rasa dhatu of excellent quality is produced which nourishes uttorothara dhatus.

The drug vidarikanda acts as shukrala and it has proepties like guru, snigdha guna sheeta veerya and madhura vipaka. The principle of Ayurveda is that a particular substance increases by supplementing substances of similar quality. Some of the qualities of shuddha shukra like singdha, pichila madhura, guru etc., are similar to that of Vidarikanda.

Herbal drugs act by their rasas. Therefore madhura rasa probably corrects the pathology of shukra which is further potencified by madhura vipaka and sheeta veerya.

Vidarikanda also has balya, brihmana and rasayana properties. A drug usually possessing these properties also acts as vajeekara. Vidarikanda acts as vata and pitta hara.

Vidarikanda is said to be vrishya i.e. a best vitaliser, probably it acts on ductless glands like pituitary and gonads (sarvadaihika shukra).

Recent chemical analysis indicates that following active constituents are present in Vidari plant.
DISCUSSION-

Charaka samhita there is a description of four types of Klaibya, viz Dhwajabhanga, Beejopaghata, Jarajanya, Kshayaja Klaibya, along with their cause, symptoms and treatment. Acharya Sushruta explains the importance of manasika bhavas in the manifestation of Klaibya, and quotes Manasika Klaibya as a type of Klaibya.

Yogaratnakara and Bhavaprakasha also accepted the importance of manasika bhavas by describing Manasika Klaibya, but acharya Charaka did not explain about Manasika Klaibya. Because Charaka mentioned the manasika nidanas like chinta, shoka, bhaya in bijopaghata and shukrakshayaja Klaibya.

Sexual health and function are important determinants of quality of life. Proper Penile erection is essential for a man’s identity, self esteem and well being with significant impact on his partner.

ED impairs the quality of life of millions of men world wide. It is a common problem that affects the majority of men at some stage of their life. An estimated 152 million men worldwide have some degree of erectile dysfunction, and more than twice that many are expected to be affected by 2025.

As the drugs used to treat ED in Contemporary Medicine have been reported unsuccessful and they have many side effects, in order to overcome these drawbacks, the Vidarikanda (Pueraria tuberose) has been shown better result in this study.

CONCLUSION-

The treatment of Klaibya is mentioned mainly as dhatu poshana or since Klaibya is said to rasapradoshaja vikara. The treatment principles incluce Nidana parivarjana (Avoiding the etiological factors either ahara/vihara), Shodhana chikitsa (Vamana, Virechana & Basti prayoga: Vrishya Yapana Basti and Uttara Basti), Shamana Chikitsa (Ksheera & Ghrita prayoga, Vajeekarana
yogas) and Rasayana Prayoga. The impaired mind is playing a major role in the manifestation of Klaibya. The performance of sexual acts depends upon physical and psychological excitement which is proportional to the strength of the body and mind\(^{25}\) (ch chi 2/4/45). Vidarikanda Churna used in this study was effective in Erectile Dysfunction, Patients A were effectively benefited and gave satisfactory results in Sexual Parameters.

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