ORIGINAL RESEARCH ARTICLE - CLINICAL STUDY

Role Of Kapikacchu White Seeds In The Management Of Klaibya: A Clinical Study

*Dr. Tarun Sharma, **Prof. A. Ramamurthy, ***Dr. Sumit Nathani
*Ph.D. Scholar, Department of Dravyaguna, IPGT & RA, GAU, Jamnagar, Gujarat., **Professor, ***Asst.Professor, Department of Dravyaguna, National Institute of Ayurveda, Jaipur

ABSTRACT

Klaibya is emerging as one of the burning problems in now days. Klaibya refers to impotency i.e a man who is unable to perform sexual intercourse, being powerless, helpless or the inability to carry out sexual activities. The Male Sexual Dysfunction(MSD) has been elaborately described as Klaibya in Ayurvediya classics. MS D includes all sorts of disturbances of coital performance and sexual congress in male.

The incidence of sexual dysfunctions increases with age. About 5% of 40 year old men and between 15% and 25% of 60 year old men experience sexual dysfunctions. Hence the present study has been planned to evaluate the efficacy of Kapikacchu white seeds in the management of Klaibya. A clinical trial on 15 patients having Klaibya was carried out. The trial drug i.e. Kapikacchu white seeds churna in the dose of 5 gm twice daily with anupana of luke warm milk was administered to all the patients for 1 month.

Result of study shown that there is highly significant result in sexual desire, total sperm count and rapid linear progressive (RLP) motility of sperms. So it can be concluded that Kapikacchu white seeds churna is safe and effective reedy in the management of Klaibya patients.

Keywords: Klaibya, Male sexual dysfunction, Kapikacchu churna, white seeds

How to Site the Article : Sharma T, Ramamurthy A, Nathani S, Role Of Kapikacchu White Seeds In The Management Of Klaibya: A Clinical Study, JOA XIII-2, 2019; 94 - 101

Introduction:

Healthy Sexual functioning plays essential role in maintaining the harmony and happiness in marital life. Among various phase of sexual response, the most essential is the achieving of normal erection with sufficient rigidity for penetrative intercourse, the absence of which ends in failure and dissatisfaction. This condition has been elaborately described as “Klaibya” in
the Ayurvediya classics and as “Male sexual dysfunction” (MSD) in the modern texts. The Male sexual dysfunction (MSD) includes all sorts of disturbances of coital performance and sexual congress in male.

Acharya Charaka has given a very justified definition of “Klaibya” as-A person even on having sexual desire and a willing partner, is not able to have coitus with her due to lack of erection or lack of rigidity of the penis. Even if he manages to have an erection, his anxiety will cause attacks of dyspnoea and profuse sweating and his attempt of having sex will result in failure. This deformity is defined as “Klaibya” (Male sexual Dysfunctions)[1].

MSD is a broad spectrum terminology, under which Erectile Dysfunction is one of the major component. It is estimated that in 1995 there were over 152 million men worldwide who had erectile dysfunction and in 2025 the number of men with erectile dysfunction will be approximately 322 million, an increase of nearly 170 million men[2]. Infertility is another component under the heading of MSD and approximately 15-20% of all cohabiting couples are infertile. Of these, in up to 50 percent of cases it is the male factor or the husband who is responsible for the infertility.

Discovery of modern medical techniques and costly treatment are inaccessible to the persons of middle lower economic strata who are more affected with the above problems. Kapikacchu (Mucunapruriens (L.)DC.) is a common plant which is easily available throughout the whole India. It is used as Balya, Vrishya, Brihankaraka and for Vatashamana[3]. It is described as Vrishya Dravya in Samhita[4] as well as Nighantus. Its seeds are used for the purpose of Vrishya Karma. In market two types of seeds (black seeds[5] and white seeds[6]) are available and are being used in the name of Kapikacchu. Black seeds have been proved efficacious for Vrishya Karma[7] but no data is available regarding aphrodisiac action of Kapikacchu white seeds till date. So the present study has been planned to fulfill the following aim.

**Aim and Objectives:**

1. To evaluate the efficacy of Kapikacchu white seeds *churna* in the management of Klaibya.
2. To provide low cost and effective treatment.

**Materials and Methods:**

**Collection and processing of drug**

White seeds of Kapikacchu were collected from field after proper identification. Seeds were purified, dried, powdered and taken for further study.

**Method of Purification**

Purification of Kapikacchu white seeds is done by Swendana vidhi which is mentioned in Vanari gutika prakarana in Bhaaisajya Ratnavali[8]. One Kudavamatra of kapikacchu seeds have been taken and dip into one Prasthamatra of Go-dugdha (1 Prastha = 4 Kudava). Then boiled it in medium heat for an hour. When the solution gets concentrated then Kapikacchu seeds separated out from the Go-dugdha. After then seed coat of Kapikacchu removed from seeds. These seeds are purified seeds of Kapikacchu.

**Selection of patients:**

For the present study, 15 male patients fulfilling the clinical criteria for diagnosis of Klaibya were selected from OPD of National Institute of Ayurveda Hospital and Seth Soorajmal Bambaiwala Hospital, Jaipur irrespective of religion, cast, occupation etc.

**Inclusion criteria:**

1. Male patients having the age of 18-60 years.
2. Male patients having sign and symptoms of Klaibya

**Exclusion criteria:**

1. Patients below 18 yrs and above 60 yrs.
2. Patients with chronic disease like severe hypertension, IHD, COPD, etc.
3. Patients with primary and secondary azoospermia.
4. Patients having any sexually transmitted diseases.
5. Erectile dysfunction due to nerve damage ex. Accidental injury like spinal cord injury and due to surgery of colon, prostate, bladder and rectum.
Method of study (protocol of Study):
The study was cleared by the Institutional Ethics Committee of National Institute of Ayurveda, Jaipur, Rajasthan. Ethical clearance no. is F10(5)/EC/2014/7221. The study is carried out as per International conference of Harmonization-Good Clinical Practices Guidelines (ICH-GCP). Written informed consent was taken on prescribed format, from each patient willing to participate, before the start of study. They are briefed about merits and demerits of research plan before taking consent. Patients were free to withdraw from the study at any time without giving any reason. A detailed case sheet was prepared incorporating Ayurveda as well as modern parameters. Observations were made according to the standard Ayurveda parameters selected and findings were recorded in well-designed case sheet.

Concept of management:
The selected patients were given Kapikacchu white seeds churna, in the dose of 5 gm twice daily, with luke warm milk for a period of 1 month.

Criteria for assessment:
The assessment of the patients was done based on subjective as well as objective criteria during the course of trial. The final assessment was done on the basis of the both parameters and by comparing the laboratorial investigation before and after the treatment.

Subjective criteria:
The International Index of Erectile Function 15 items (IIEF-15) was used at baseline day, day 15 and day 30. IIEF-15 questionnaire was adopted to rule out the sexual problems in the individual and for the assessment of the result.

Objective criteria:
Semen analysis was done on baseline and final day of study.

Observations and Results:

Demographic profile:
A majority of Klaibya patients i.e. 53.33% were in the age group of 20–30 years, 93.33% of the patients belonged to Hindu religion, 53.33% were educated up to graduation, 46.66% belonged to middle class, 66.66% were living in urban areas and 66.66% patients had the history of being vegetarian regarding their food habit. A major proportion of the patients e.g. 46.66% of the patients were involved in desk work. 46.66% patients had sound sleep and 40% patients had the addiction of tea and few patients had the history of smoking, tobacco and alcohol consumption.

In this study, majority of patients e.g. 66.66% patients were of Vatta-Pitta type of Sharirika Prakriti where as 80% patients were of Rajasika type of Mansika Prakriti. The maximum number of patients had Manda Agni (53.33%), Madhyama Kostha (66.66%), Madhyama Sara (60%), Madhyama Samhanana (60%), Madhyama Pramana (46.66%), Madhyama Satmya (60%), Avara Sattva (60%), Madhyama Ahara Shakti (40%) and Avara Vyayama Shakti (53.33%).

Results:
All the Results were calculated by using Software: InStat GraphPad 3.

For Nonparametric Data Wilcoxon matched-pairs signed ranks test is used while for Parametric Data Paired ‘t’ Test is used and results Calculated in each group.

The results were considered as bellow-

Insignificant/Non significant : P >0.05
Significant : P <0.05
Highly significant : P < 0.01, P < 0.001, P<0.0001

Effect of drug in subjective parameters: Effect of kapikacchu white seeds churna on subjective parameters has been depicted in table no.I. (Graph no. 1)
Table No.1: Showing Effect of Drug on Subjective Parameters (Wilcoxon Matched Paired Single Ranked Test)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Mean Diff.</th>
<th>% Relief</th>
<th>SD±</th>
<th>SE±</th>
<th>p value</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BT</td>
<td>AT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Erectile function</strong></td>
<td>14.80</td>
<td>17.66</td>
<td>2.86</td>
<td>19.32%</td>
<td>0.51</td>
<td>0.13</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td><strong>Orgasmic function</strong></td>
<td>7.26</td>
<td>7.53</td>
<td>0.27</td>
<td>3.71%</td>
<td>1.10</td>
<td>0.28</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td><strong>Sexual desire</strong></td>
<td>6.33</td>
<td>8.06</td>
<td>1.73</td>
<td>27.33%</td>
<td>0.96</td>
<td>0.24</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Intercourse satisfaction</strong></td>
<td>4.13</td>
<td>3.66</td>
<td>0.47</td>
<td>11.38%</td>
<td>1.30</td>
<td>0.33</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td><strong>Overall satisfaction</strong></td>
<td>4.40</td>
<td>5.20</td>
<td>.80</td>
<td>18.18%</td>
<td>0.94</td>
<td>0.24</td>
<td>&lt;0.05</td>
</tr>
</tbody>
</table>

(HS: Highly Significant    S: Significant    NS: Non Significant)

**Effect of drug on Erectile function score:**
The mean score before treatment was 14.80 which increase upto 17.66 after treatment, with SD±0.51 giving a relief of 19.32% which was statistically highly significant (p < 0.0001).

**Effect of drug on Orgasmic function score:**
The mean score before treatment was 7.26 which increased upto 7.53 after treatment, with SD±1.10 giving a relief of 3.71% which was statistically non-significant (p >0.05).

**Effect of drug on Sexual desire score:**
The mean Score before treatment was 6.33 which increased upto 8.06 after treatment, with SD±0.96 giving a relief of 27.33% which was statistically highly significant (p < 0.0001).

**Effect of drug on Intercourse satisfaction score:**
The mean Score before treatment was 4.13 which lowered down to 3.66 after treatment, with SD±1.30 giving a relief of 11.38% which was statistically non-significant (p >0.05).

**Effect of drug on Overall satisfaction score:**
The mean Score before treatment was 4.40 which increased upto 5.20 after treatment, with SD±0.94 giving a relief of 18.18% which was statistically significant (p < 0.05).

Graph no. 1: Showing effect of drug on Subjective Parameters
Effect of drug in objective parameters: Effect of *kapikacchu* white seeds *churna* on objective parameters has been depicted in table no. II. (Graph no. 2)

Table no. II: Showing effect of drug on seminal parameters/objectives parameters: (paired*t’ test)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean BT</th>
<th>Mean AT</th>
<th>Mean Diff.</th>
<th>% Relief</th>
<th>SD±</th>
<th>SE±</th>
<th>t value</th>
<th>P value</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Semen volume (In ml.)</strong></td>
<td>2.30</td>
<td>2.36</td>
<td>0.06</td>
<td>2.60%</td>
<td>0.41</td>
<td>0.10</td>
<td>0.619</td>
<td>&gt; 0.05</td>
<td>NS</td>
</tr>
<tr>
<td><strong>Semen pH</strong></td>
<td>7.66</td>
<td>7.75</td>
<td>0.09</td>
<td>1.17%</td>
<td>0.54</td>
<td>0.14</td>
<td>0.614</td>
<td>&gt; 0.05</td>
<td>NS</td>
</tr>
<tr>
<td><strong>Total Sperm count (Million/ml)</strong></td>
<td>23.13</td>
<td>26.26</td>
<td>3.13</td>
<td>13.53%</td>
<td>2.94</td>
<td>0.76</td>
<td>4.115</td>
<td>&lt; 0.001</td>
<td>HS</td>
</tr>
<tr>
<td><strong>RLP (In %)</strong></td>
<td>48.00</td>
<td>51.33</td>
<td>3.33</td>
<td>6.93%</td>
<td>2.44</td>
<td>0.62</td>
<td>5.292</td>
<td>&lt; 0.0001</td>
<td>HS</td>
</tr>
<tr>
<td><strong>SLP (In %)</strong></td>
<td>19.33</td>
<td>20.33</td>
<td>1.00</td>
<td>5.17%</td>
<td>3.87</td>
<td>1.00</td>
<td>1.000</td>
<td>&gt; 0.05</td>
<td>NS</td>
</tr>
<tr>
<td><strong>NP (In %)</strong></td>
<td>12.00</td>
<td>10.00</td>
<td>2.00</td>
<td>16.66%</td>
<td>2.53</td>
<td>.65</td>
<td>3.214</td>
<td>&lt; 0.05</td>
<td>S</td>
</tr>
<tr>
<td><strong>IM (In %)</strong></td>
<td>20.66</td>
<td>18.66</td>
<td>2</td>
<td>9.68%</td>
<td>4.14</td>
<td>1.06</td>
<td>1.871</td>
<td>&gt; 0.05</td>
<td>NS</td>
</tr>
</tbody>
</table>

(RLP-Rapid linear progressive, SLP- Sluggish linear progressive, NP- Non progressive, IM- Immotile)

Effect of drug on Semen volume:
The mean score before treatment was 2.30 which increased upto 2.36 after treatment, with SD±0.41 giving an improvement of 2.60% which was statistically non-significant (P >0.05).

Effect of drug on Semen pH:
The mean score before treatment was 7.66 which increased upto 7.75 after treatment, with SD ± 0.54 giving an improvement of 1.17% which was statistically non-significant (P >0.05).

Effect of drug on Total Sperm Count:
The mean score before treatment was 23.13 which increased upto 26.26 after treatment, with SD±2.94 giving an improvement of 13.53% which was statistically highly significant (P <0.001).

Effect of drug on RLP score:
The mean score before treatment was 48.00 which increased upto 51.33 after treatment, with SD±2.44 giving an improvement of 6.93% which was statistically highly significant (P <0.0001).

Effect of drug on SLP score:
The mean score before treatment was 19.33 which increased upto 20.33 after treatment, with SD±3.87 giving an improvement of 5.17% which was statistically non-significant (P >0.05).

Effect of drug on NP Score:
The mean score before treatment was 12.00 which lowered down to 10.00 after treatment, with SD±2.53 giving an improvement of 16.66% which was statistically significant (P <0.05).

Effect of drug on IM Score:
The mean score before treatment was 20.66 which lowered down to 18.66 after treatment, with SD±4.14 giving an improvement of 9.68% which was statistically non-significant (P >0.05).
Discussion:

The demographical profile of present study shows that Klaibya is prevailing within the people of 20-30 years. On an average, it is ascertained that active sexual life begins at 25 years and once a series of satisfactory sexual acts, due to presence of anxiety, mental stress and strain, it is more prevalent within the people 20-30 and therefore the sexual behaviour is greatly affected which ends in sexual dysfunction. Maximum numbers of patients were from graduation group. The probable cause may be that in this period people are keenerto their future, thus they might be in more stress thus resulting in Klaibya. Maximum numbers of patients were from the middle class community. Middle class cannot afford current costly diagnostic test and drug treatment thus they like Government Hospitals wherever within the drug treatment and therefore the tests are at very reasonable price or almost free. Maximum patients belonged to urban habitat. Maximum patients were having Avara Vyayama Shakti. Hence it are often deduced that sedentary lifestyle predominant in urban surroundings is more likely to precipitate the disease. Majority of patients belonged to Vata-Pitta prakriti. Vata prakriti Purusha can have Alpa Santana. Pitta prakriti Purusha can have Alpa Shukra, Alpa Vyavaya Shakti & canl have Iby virtue of Katu-Amla Rasa of Pitta Dosha. Thus it’s going to be inferred that either Vata or Pitta association in Sharira Prakriti may build the person more susceptible for Klaibya.

Kapikacchu white seeds churna provided statistically significant relief within the symptoms of erectile function, sexual desire and overall satisfaction whereas no relief was seen in orgasmic function, intercourse satisfaction, statistically. Kapikacchu white seeds churna also showed statistically significant improvement in total sperm count, rapid linear progressive (RLP) motility and non-progressive (NP) motility of sperms however improvement of other seminal parameters like semen volume, sluggish linear progressive (SLP) motility of sperms and in immotile (IM) sperms were statistically non-significant.

Kapikacchu seeds possess Guru-Snigdha Guna, Madhura Rasa, Madhura Vipaka and Sheeta Virya. Acharya Charaka has mentioned Guru-Snigdha Guna and Madhura Rasa amongst the six qualities of Vrishya Dravya. Here Guru-Snigdha Guna and Madhura Rasa are similar to the properties of Shukra. Therefore it will increases the Shukra by Samanya Visesha Siddhanta. Kapikacchu possesses Madhura Rasa which is called as Sharira Satmya, Marutaghna and Shukrabhi vardhana, the efore it directly will increase Shukra, will be utilized in Shukra dusti specially Vataja Shukra dusti. It has Madhura Vipaka which is called as Shukrala and Sristavin mutra and therefore acts as Vrishya and helps to increase as well as ejaculate Shukra. It has Sheeta Virya, therefore it can be used to delay ejaculation just in case of premature ejaculation. Kapikacchu gives better effect on sexual parameters by assuaging the Vata Dosha due to its Guru and Snigdha Guna, which is the root cause in the manifestation of Klaibya. So due to properties like Guru-Snigdha Guna and Madhura Rasa, Kapikacchu seeds...
demonstrate *Vrishya, Balya, Brihana, Vajikara* actions. *Kapikacchu* works as *Shukra vaha Srotoshodhaka* (clears the blocked channels), balances the vitiated *Vata*, there by improving the sexual behaviour and hence can be used as a drug of choice in treating the disease.

Treatment with *Mucuna pruriens* ameliorated psychological stress and seminal plasma lipid peroxide levels significantly together with improved spermatozoa count and motility. Treatment additionally restored the amount of SOD, GSH, catalase and ascorbic acid in seminal plasma of infertile men. *Mucuna pruriens* therapy rectifies the distressed alanine, histidine, citrate and phenyl alanine content in seminal plasma and improves the seminal fluid quality. It indicates that *M. pruriens* supports in the management of stress and improves semen quality.

**Conclusion:**

Present study revealed that *Kapikacchu* white seeds *churna* showed a highly significant increase in erectile function and sexual desire. It has also showed highly significant increase in total sperm count and rapid linear progressive (RLP) motility of sperms. *Kapikacchu churna* was well tolerated by all the patients and no side effect was observed during the course of clinical study. So it can be said that *Kapikacchu* white seeds is safe and effective remedy in the management of *Klaibya* patients. Sexual dysfunctions and infertility being the results of both psychological and physical factors as a whole, psychological support will also prove beneficial in the patients of *Klaibya*.

**References**

सारांश
आधुनिक परिपेक्ष्य में क्लैब्य एक बहुत ही ज्यादा चिकित्सा की जाने वाली रोग है। क्लैब्योजनिक क्योंकि यह ज्यादातर त्वचा और तुल्य रूप से आता है। क्लैब्य का निर्देशार्थ या परिप्रेक्ष्यों में पुरुष योगी विकृति को विस्तृत रूप से क्लैब्य के रूप में बतलाया गया है। पुरुष योगी विकृति के अंतर्गत त्वचा क्रिया के समय आने वाली समस्याओं को समाधानित किया गया है। आयु के बढ़ने के साथ साथ योगी विकृति की समस्या भी बढ़ती रहती है। 40 वर्ष की आयु के योगी में लगभग 5 प्रतिशत और 60 वर्ष की आयु के योग के योगी में लगभग 15 से 25 प्रतिशत योगी विकृति का होना पाया गया है। जिसके अंतर्गत 15 क्लैब्य के रोगियों को लेकर चिकित्सक से धार्मिक शोध कार्य प्रारंभ किया गया।

सभी रोगियों को कपिकच्छु बेला चूर्ण 5 ग्राम की मात्रा में दिन में 2 बार कोणाण द्राक्ष के अनुपान से। साथ के लिए दिया गया। अध्ययन के परिणाम से पता चला मेधुन की इच्छा, कुल शुक्राणु संख्या, शुक्राणु की तीव्र रेखायें गतिशीलता में अल्पविधि महत्वपूर्ण परिणाम प्राप्त हुये।

इसलिए यह निष्कर्ष निभाता जा सकता है की क्लैब्य के रोगियों के लिये कपिकच्छु बेला चूर्ण सुरक्षित और प्रभावी चिकित्सा है।