

## EFFICACY STUDY OF ASHWAGANDHA AND YASHTIMADHU CHOORNA IN THE MANAGEMENT OF SHUKRAKSHAYA (OLIGOSPERMIA)

Chowdhary Amit

Gupta Rachna<sup>1</sup>Mangooli S. P.<sup>2</sup>

Dept of Kayachikitsa, Gaur Brahman Ayurvedic College, Brahmanwas, Rohtak

<sup>1</sup>Dept of Kriya Sharir, J. I. A. R, Jammu<sup>2</sup>Dept of Kayachikitsa, B. N. M. E. Trust, Bijapur, Karnataka

### ABSTRACT

*Shukrakshya* (Oligospermia) is one of the main causes in childless couples and is affecting population in all cultures and societies from primitive to the sophisticated ones. In India 10% - 12% couples are unable to bear a child with this problem.

Thirty patients were randomly selected to clinically evaluate the efficacy of *Ashwagandha choorna* and *Yastimadhu choorna*. Either *choorna* was given for one month with 150 ml cow milk for the control of *Shukrakshya* (Oligospermia). Both *Ashwagandha choorna* and *Yastimadhu choorna* were effective in the management of *Shukrakshya* (Oligospermia). *Ashwagandha Choorna* group was more effective on motility, volume, viscosity, active motile, sluggish motile and non motile; whereas *Yastimadhu choorna* was more effective in *Asakt maithun*, *Kamasakt*, *Shukravisarg*, *Harsh* and sperm count.

**Keywords:** *Shukrakshya*, Oligospermia, *Ashwagandha choorna*, *Yastimadhu choorna*

### INTRODUCTION

In all cultures and societies from the primitive to the most sophisticated ones nearly all men and women desire progeny. But it is not possible in 2-5 % of couple around the world as they are having difficulty in conceiving children.<sup>1</sup> Out of total infertility, male is directly responsible in 30%-40% cases.<sup>2</sup> This percentage varies from race to race and age group of married couples in all religion etc.<sup>3</sup> *Shukrakshya* (Oligospermia) is one of the main causes in childless couples.<sup>4</sup> In allopathic treatment of Oligospermia; side effects are very common like diarrhea, gastritis, headache, flushing, dizziness, rashes and frequent painful penile erection.<sup>5</sup> Even if used for long term may cause impotency.<sup>6,9,10,11</sup>

Contrarily, Ayurvedic medicines are effective without any side effects.<sup>7</sup> Hence, two of such medicines were selected and evaluated for their efficacy in the management of *Shukrakshaya*.

### MATERIALS AND METHODS

The patients of *Shukrakshya* (Oligospermia) within the age group of 20 to 50 yrs were selected randomly amongst O.P.D. and I.P.D. of Dr. B. N. M. E. Trust's Shri Mallikarjuna Swamiji Post Graduate and Research Centre, Bijapur (Karnatka) along with camps conducted by the institute irrespective of their caste, occupation and socio-economic status. The size of sample was 30 excluding the drop outs.

Two groups, each of fifteen male patients suffering from Oligospermia (having

sperm count less than 20 million /ml) were selected for Ayurvedic treatment. Contrarily, patients with systemic disorder like T.B, C.A, V.D, D.M and H.I.V etc. were rejected. Even patients having drug induced and iatrogenic induced Oligospermia were rejected.

Three gram *Ashwagandha choorna*<sup>8</sup> with 150 ml. cow milk was given twice a day to first group for 1 month. Similarly, two gram *Yastimadhu Choorna*<sup>8</sup> with 150 ml. cow milk was given twice a day to second group for 1 month. During the treatment, patients were asked to come once in a week for one month. These patients were asked for follow up (only once) after one month.

## RESULTS AND DISCUSSION

**Table 1: Effect of Ashwagandha choorna in patients of Shukrakshya (Oligospermia)**

| Variable             | Grading | Mean   | SD     | t      | p      | Significance |
|----------------------|---------|--------|--------|--------|--------|--------------|
| <i>Asakt maithun</i> | BT      | 2.2000 | 0.4140 |        |        |              |
|                      | AT      | 2.0667 | 0.5960 | 0.7135 | 0.4814 | N.S.         |
|                      | PTFU    | 1.5333 | 0.5164 | 3.9009 | 0.0005 | H.S.         |
| <i>Kamasakt</i>      | BT      | 2.7333 | 0.7037 |        |        |              |
|                      | AT      | 2.4667 | 0.7432 | 1.0090 | 0.3216 | N.S.         |
|                      | PTFU    | 1.5333 | 0.5164 | 5.3245 | 0.0000 | H.S.         |
| <i>Shukravisarg</i>  | BT      | 2.8000 | 0.1014 |        |        |              |
|                      | AT      | 2.4000 | 1.1212 | 1.0247 | 0.3143 | N.S.         |
|                      | PTFU    | 1.5333 | 0.7432 | 3.9017 | 0.0005 | H.S.         |
| <i>Harsh</i>         | BT      | 2.6000 | 0.7368 |        |        |              |
|                      | AT      | 2.4667 | 0.8338 | 0.4641 | 0.6462 | N.S.         |
|                      | PTFU    | 1.8000 | 0.5606 | 3.3466 | 0.0023 | H.S.         |

Clinical assessment, i.e., severity of the disease of each patient was assessed as normal, mild, moderate and severe, before treatment (BT), during the treatment, and after one month of treatment (AT). Treated patients were again called after one month as follow up (PTFU).

For each patient data were collected both on subjective parameters, i.e., *Asakt maithun* (Erection), *Kamasakt* (Desire), *Shukravisarg* (Ejaculation) and *Harsh* (Excitement) and clinical parameters sperm count and motility. The collected data for each patient under each group before, during and after treatment was statically analyzed using students' 't' test.

|                 |      |         |         |        |        |      |
|-----------------|------|---------|---------|--------|--------|------|
| Sperm count     | BT   | 2.9333  | 0.9612  |        |        |      |
|                 | AT   | 1.8667  | 0.9904  | 2.9933 | 0.0057 | H.S. |
|                 | PTFU | 1.4000  | 0.5071  | 5.4647 | 0.0000 | H.S. |
| Motility        | BT   | 2.5333  | 0.6399  |        |        |      |
|                 | AT   | 1.8000  | 0.5606  | 3.3384 | 0.0024 | H.S. |
|                 | PTFU | 1.4667  | 0.6399  | 4.5648 | 0.0001 | H.S. |
| Volume          | BT   | 2.0267  | 0.8075  |        |        |      |
|                 | AT   | 2.7267  | 0.7235  | 2.5004 | 0.0185 | S.   |
|                 | PTFU | 3.3267  | 0.8506  | 4.2928 | 0.0002 | H.S. |
| Viscosity       | BT   | 36.3333 | 4.8058  |        |        |      |
|                 | AT   | 32.6667 | 2.5820  | 2.6041 | 0.0146 | S.   |
|                 | PTFU | 30.3333 | 1.2910  | 4.6699 | 0.0001 | H.S. |
| Active motile   | BT   | 27.2667 | 7.9375  |        |        |      |
|                 | AT   | 35.4667 | 9.1329  | 2.6254 | 0.0139 | S.   |
|                 | PTFU | 41.2667 | 8.3620  | 4.7043 | 0.0001 | H.S. |
| Sluggish motile | BT   | 10.8667 | 3.1818  |        |        |      |
|                 | AT   | 13.6000 | 4.0497  | 2.0555 | 0.0493 | S.   |
|                 | PTFU | 17.0000 | 3.9461  | 4.6861 | 0.0001 | H.S. |
| Non motile      | BT   | 61.800  | 10.4895 |        |        |      |
|                 | AT   | 50.9333 | 9.3462  | 2.9956 | 0.0057 | S.   |
|                 | PTFU | 41.7333 | 9.9460  | 5.3765 | 0.0000 | H.S. |

**Table 2: Effect of Yashtimadhu choorna in patients of Shukrakshya (Oligospermia)**

| Variable             | Grading | Mean   | SD     | t      | p      | Significance |
|----------------------|---------|--------|--------|--------|--------|--------------|
| <i>Asakt maithun</i> | BT      | 2.1333 | 0.3519 |        |        |              |
|                      | AT      | 1.8000 | 0.5606 | 1.9505 | 0.0612 | N.S.         |

|                     |      |         |        |        |        |      |
|---------------------|------|---------|--------|--------|--------|------|
|                     | PTFU | 1.3333  | 0.4880 | 5.1504 | 0.0000 | H.S. |
| <i>Kamasakt</i>     | BT   | 2.93333 | 0.5936 |        |        |      |
|                     | AT   | 2.0000  | 0.7559 | 3.7606 | 0.0008 | H.S. |
|                     | PTFU | 1.5333  | 0.5164 | 6.8195 | 0.0000 | H.S. |
| <i>Shukravisarg</i> | BT   | 2.7333  | 0.8837 |        |        |      |
|                     | AT   | 2.6000  | 0.9856 | 0.3901 | 0.6994 | N.S. |
|                     | PTFU | 1.4000  | 0.7368 | 4.4882 | 0.0001 | H.S. |
| <i>Harsh</i>        | BT   | 2.6000  | 0.5071 |        |        |      |
|                     | AT   | 2.2667  | 0.7037 | 1.4884 | 0.1478 | N.S. |
|                     | PTFU | 1.4667  | 0.5164 | 6.0648 | 0.0000 | H.S. |
| Sperm count         | BT   | 2.6000  | 0.8281 |        |        |      |
|                     | AT   | 1.6000  | 0.5071 | 3.9886 | 0.0004 | H.S. |
|                     | PTFU | 1.0000  | 0.0000 | 7.4833 | 0.0000 | H.S. |
| Motility            | BT   | 2.4667  | 0.6399 |        |        |      |
|                     | AT   | 2.1333  | 0.7432 | 1.3162 | 0.1987 | N.S. |
|                     | PTFU | 1.4667  | 0.7432 | 3.9489 | 0.0005 | H.S. |
| Volume              | BT   | 2.3200  | 0.9321 |        |        |      |
|                     | AT   | 2.9800  | 0.8809 | 1.9931 | 0.0561 | N.S. |
|                     | PTFU | 2.2867  | 0.8643 | 2.9453 | 0.0064 | S.   |
| Viscosity           | BT   | 34.3333 | 4.9522 |        |        |      |
|                     | AT   | 33.4000 | 3.6606 | 0.5870 | 0.5619 | N.S. |
|                     | PTFU | 32.0000 | 2.5355 | 1.6243 | 0.1155 | N.S. |
| Active motile       | BT   | 25.3333 | 7.3647 |        |        |      |
|                     | AT   | 32.0667 | 9.7137 | 2.1393 | 0.0413 | S.   |
|                     | PTFU | 39.2000 | 9.9728 | 4.3320 | 0.0002 | H.S. |
| Sluggish motile     | BT   | 11.5333 | 3.8334 |        |        |      |

|            |      |         |         |        |        |      |
|------------|------|---------|---------|--------|--------|------|
|            | AT   | 13.8667 | 4.2066  | 1.5879 | 0.1235 | N.S. |
|            | PTFU | 16.6667 | 4.5145  | 3.3569 | 0.0023 | H.S. |
| Non motile | BT   | 63.4000 | 11.2364 |        |        |      |
|            | AT   | 54.7333 | 13.1394 | 1.9369 | 0.0629 | N.S. |
|            | PTFU | 44.1333 | 12.8667 | 4.3682 | 0.0002 | H.S. |

Table 1 depicts the effect of *Ashwagandha choorna* (group A) on subjective as well as clinical parameters before treatment (BT), after one month treatment (AT) and follow up after two months (PTFU). Similarly table 2 indicates the role of *Yastimadhu choorna* (group B). The comparative performance of these Ayurvedic medicines is as follows:

**Asakt maithun (Erection):** The patients of Group A & B have shown statistically Non Significant after treatment but highly significance on *Asakt Maithun* at the end of Post treatment follow up. But Result of group B is better than group A after treatment and at follow up.

**Kamasakt (Desire):** After treatment and post treatment follow up the patients of group B were highly significant whereas it had no effect in patients of group A.

**Shukravisarg (Ejaculation):** The patients of both group A and B were statistically non significant after treatment, whereas, results of group B were better after the end of post treatment follows up.

**Harsh (Excitement):** Result of *Yastimadhu choorna* was better than *Ashwagandha choorna* after treatment and at follow up.

**Sperm count:** Both after treatment and Post treatment follow up patients of both group A and group B had shown improvement on sperm count.

However, *Yastimadhu choorna* was better than *Ashwagandha choorna*.

**Motility:** After treatment and post treatment follow up; patients treated with *Ashwagandha choorna* showed highly significant improvement in motility. However *Yastimadhu choorna* was better in follow up.

**Volume:** *Ashwagandha choorna* showed significant improvement on volume after treatment and highly significance at the end of post treatment follow up whereas, *Yastimadhu choorna* was better only at the end of post treatment follow up.

**Viscosity:** Group A showed significant effect on Viscosity after treatment and highly significance at the end of Post treatment follow up. Group B showed non-significant effect on viscosity after treatment and at the end of post treatment follow up. Thus, result of group A is better than group B after treatment and at follow up.

**Active motile:** Both after treatment and post treatment follow up patients of group A and group B had shown significance after treatment and highly significance after follow up result on Active Motile.

**Sluggish motile:** *Ashwagandha choorna* showed significant improvement in motility during treatment. Similarly, sluggish motility improved significantly in both groups after post treatment follow up.

## CONCLUSION

The outcome shows that both *Ashwagandha choorna* and *Yastimadhu choorna* are effective in the management of *Shukrakshya* (Oligospermia). *Ashwagandha choorna* has shown its effect on motility, volume, viscosity, active motile, sluggish motile, *Shukravisarg* (only after treatment) and non motile after treatment and follow up. *Yastimadhu choorna* has shown its effect on *Asakt maithun*, *Kamasakt* and *Shukravisarg* (only after follow up), *Harsh* and sperm count after treatment and follow up.

## REFERENCES

1. C.R.W. Edwards, A.D. Toft and B.R. Walker In, Davidson's Principle and Practice of Medicine (ed. Christopher Haslett); 20th Edition 2006.
2. Dutta D.C., Text book of Gynecology, 5<sup>th</sup> ed. Calcutta; New Central Book Agency, 2005.
3. V.G. Padubidri and Shirish N. Daftary, Shaw's textbook of Gynaecology; 12<sup>th</sup> Edition Churchill Livingstone, 2002.
4. Harrison's, Principles of Internal Medicine, 16<sup>th</sup> ed. America; Medical publication division MC Graw Hill, 2005.
5. GUZIK D. S.: Sperm morphology, motility, concentration in fertile and infertile men. N Eng J Med 345: 1388, 2001.
6. Guyton C. Arthur and John E. Hall; Guyton Textbook of medical Physiology

11<sup>th</sup> edition Singapore; Harcourt Asia P.T.E. Ltd, 2003.

7. Acharya Y.T. Charaka Samhita of Agnivesha. 5<sup>th</sup> ed. Varanasi, Chaukhamba Surbharati Prakashan, 2003.
8. Mishra Brahmashankara and Rupalalji Vaisya, Bhavaprakasha Nighantu of Sri Bhavamishra. 9<sup>th</sup> ed. Varanasi, Chaukhamba Sanskrit Sansthan, 1999.
9. Kandeel F.R., Koussa V.K. and Swerdloff R.S.: Male sexual function and its disorders: physiology, pathophysiology, clinical investigation, and treatment. Endocr Rev 22:342, 2001.
10. Stephen J. McPhee, Maxine A. Papadakis, Eds. Ralph Gonzales, Roni Zeiger, Online Eds. CURRENT Medical Diagnosis & Treatment 48<sup>th</sup> edition 2009.
11. David A. Warrel, Timothy M. Cox and John D. Firth; Oxford Text book of medicine 5<sup>th</sup> edition 2010.

## CORRESPONDING AUTHOR

Dr. Amit Chowdhary  
Lecturer of Kayachikitsa  
Gaur Brahman Ayurvedic College,  
Brahmanwas, Rohtak  
Email: amitchowdhary18@yahoo.in

Source of support: CCRAS  
Conflict of interest: None Declared