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# A Comparative Clinical Study of *Chatuha Prasratika Basti* and *Satavari Ksira Paka* in the Management of *Kshina Shukra* (Oligozoospermia).

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# **ABSTRACT:**

Kshina Shukra is one of the abnormal condition of Shukradhatu in which qualitative as well as quantitative vitiation of Shukra occurs, it is caused by the Vata-Pitta Dosha. In modern science it can be correlated as Oligozoospermia. The term Oligozoospermia is defined on the bases count and motility, where the sperm count is <15 mill/ml of semen can be considered as Oligozoospermia. Basti is the main therapy for Vata related diseases. Charaka Acharya mentioned so-many Vrushya basti in Charakam sidhi sthana, among them Chatuha Prasratika Basti, explained as Parama Vrshya, so that this Basti was selected for the study. Satavari and Ksira is Vata-Pitta Shamaka and Vrushya so that Satavari Ksirapaka is selected for study.

**Keywords:** Chatuha Prasratika Basti, Satavari Ksirapaka, Kshina Shukra, Oligozoospermia

# INTRODUCTION

Kshina Shukra is one of the abnormal condition of Shukradhatu caused by variety of etiological factors such as Chinta, Bhaya, Shoka, Krodha, and similar other stressful conditions and is therefore frequently noticed in people with Avara Satva and Durbala Sharira who practice Ruksha-Annapana-Aoushadha. Shukra Kshaya caused due to Sahaja factor is incurable in nature<sup>1</sup>. Kshina Shukra is a type of Shukra Dusti that leads to male infertility and is referred to as Oligozoospermia in modern medicine. The term Oligozoospermia is defined on the bases count and

motility, where the sperm count is <15 mill/ml of semen can be considered as Oligozoospermia. In Oligozoospermia only sperm count was affected but in Kshina Shukra qualitative as well as quantitative value of Shukra was affected. Charaka Acharya mentioned somany Vrushya basti in Charakam sidhi sthana, among them Chatuha Prasratika Basti², explained as Parama Vrshya, so that this Basti was selected for the study. Satavari and Ksira is Vata-Pitta Shamaka and Vrushya so that Satavari Ksirapaka is selected for study.



# **AIMS & OBJECTIVES**

The aim of present study was to evaluate comparative efficacy of *Chatuha Prasratika Basti* and *Satavari Ksira Paka* in the management of *Kshina Shukra* w.s.r to Oligozoospermia.

# MATERIALS AND METHODS

50 clinically diagnosed patients of Oligozoospermia (*Kshina Shukra*) willing to be part in study and follow up were selected on the basis of medical history sheet i.e according to *Trividha*, *Ashtavidha*, *Dashavidha Pariksha* and necessary investigation from OPD/IPD of P.G. Department of *Panchakarma* in D.S R RAU, Jodhpur. They have been given selected treatment in accordance with the inclusion and exclusion criteria.

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#### **Inclusion criteria**

- 1. Male patient in the age group from 25 to 50 years
- 2. Patient with classical symptoms of Kshina Shukra
- 3. Patient who are *Basti Yogya*.
- 4. Sperm count < 15 million/ml.

# **Exclusion criteria**

- 1. Patient age <25 and >50 years.
- 2. Sperm count above 20 million/ml
- 3. Patients of azoospermia and aspermia
- 4. All congenital case of impotency
- History of previous medications and trauma leading to Oligozoospermia.
- 6. Who are *Ayogya* for the *Basti Karma*.

# **Grouping of patients:**

In this study, total 50 patients of *Kshina Shukra* were registered. Patients were randomly categorized into two groups by Simple Random Sampling method. Viz. Group A and Group B.

**Group A**: 25 Patients were administered with *Chatuha Prasratika Basti* for 15 days duration.

**Group B:** 25 Patients were administered with *Satavari Ksira Paka* internally for 30 days duration.

# Criteria for diagnosis<sup>3</sup>

The diagnostic criteria is focused mainly on the classical signs and symptoms of *Kshina Shukra* and having sperm count <15 million/ml were selected for present clinical trial (WHO recommended standard for normal Semenogram

2010). Further, basic hematological investigations were carried out to exclude any other pathology

#### Criteria for withdrawal

Patients were informed to withdraw from the clinical trial himself . Or during clinical study, if any serious condition developed / symptoms that required emergency management

# **Drug, Dose & Duration**

Chatuha Prasratika Basti was administered 15 days as Yapana Basti with 400ml through rectal route in morning between 10 to 11 AM before food. 50 ml Satavari Ksira Paka was administered internally for 30 days before food twice a day.

#### Assessment criteria

Following parameters were adopted for assessing any change observed during and after the treatment-

#### A. Subjective criteria:

For the assessment of the effect of therapies on sexual parameters, the Scoring system developed by Mehra and Singh (1995) and WHO criteria for *Ayurveda* signs and symptoms<sup>3</sup> was adopted with slight modifications.

# B. Objective criteria:

Improvement in the Semenogram was observed especially in total sperm count.

#### Statistical analysis

The information gathered on the basis of above observation was subjected to statistical analysis using In Stat Graph Pad 3 software. As the criteria selected for analysis were non-parametric hence "Wilcoxon matched-pairs signed rank test" and Paired "t" test was applied for Subjective and Objective Parameter for intragroup comparison. To compare the efficacy of two groups, Mann-Whitney Test & Unpaired "t" Test was used.

# The results were interpreted as-

- ightharpoonup P > 0.05 Not-Significant (NS)
- ❖ P<0.05 Significant (S)
- ❖ P<0.01 Very Significant (VS)
- ❖ P<0.001 Extremely Significant (ES)

# **OBSERVATIONS**

In present study it is observed that maximum number of patient's belonged to Age group 25-30 years, *Hindu* community, educated up to the Secondary level, Middle

class family Occupation were businessman, were doing moderate physical exertion, having history of mumps in childhood, Primary Infertility, severe Oligozoospermia i.e 0<5 million/ml. Majority of patient mood is normal, having faulty food habits *Viruddhashana*, *Adhyasahana*, *Vishamasana*, *Ajirnasana*, addicted to chewing tobacco, having *Vishamagni*, *Madhyama Kostha*. *Vata Prakriti Purusha*, *Madhyama Satva*, *Sara*, *Samhanana*.

In current study it is noted that maximum number of patients having *Daurbalya* (88%), *Alpa Shukra Pravritti* (Low semen volume < 2 ml/ejaculate) is in 66%. Loss of sexual desire was found in 64%, Premature ejaculation 48%, *Shrama Maithuna* (Exertion during intercourse) was reported in 40%, *Sadana* (Fatigue in 36%), *Sandhishoola* (Joint pain in 36%), *Alpa Cheshta* (Lack of initiation 26%), *Shosha* (Weight loss) was reported in 26%, *Mukhshosha* (Dryness of mouth in 24%) and *Bhrama* (Giddiness) both are found in 22 % of the patients. No patient was having *Pandu* (anemia).

#### RESULTS

# **Intra Group Comparison**

Table No.1 Effect of Therapy in Subjective Parameters Table No.2 Effect of Therapy in Objective Parameters

# **Inter Group Comparison Effect of Therapy in Subjective Parameters**

Mann Whitney U-test is carried out for comparison between Group A and Group B. It is observed that P-Value for Lack of Sexual Desire, *Daurbalya* (General Debility) and Sadan (Fatigue) is less than 0.001(P<0.001) Hence it can be concluded that there is Extremely Significant difference observed between Group A and Group B for Lack of Sexual Desire, Daurbalya (General Debility) and Sadan (Fatigue). P-Value for Bhrama (Giddiness) is less than 0.05 (P<0.05) it can be concluded that there is Significant difference observed between Group A and Group B for Bhrama (Giddiness). P-Value for Lack of penile Erection (Klevya) and Lack of Penile-rigidity (Linga-shaithilya) is greater than 0.05 it can be concluded that there is Not Significant difference observed between Group A and Group B for Lack of penile Erection (*Klevya*) and Lack of Penile-rigidity (Linga-shaithilya).

# Effect of Therapy in Objective Parameters.

Unpaired t-test is carried out for comparison between Group A and Group B. It can be observed that P-Value for Semen volume and Sperm motility is less than 0.001(P<0.001) Hence it can be inferred that there is Extremely Significant difference observed between Group A and Group B for Semen volume and Sperm motility, P value for Sperm count is 0.0072 (P<0.01) Hence it can be inferred that there is Very Significant difference observed between Group A and Group B for Sperm count.

# **Overall Effect of Therapies**

In **Group A**, Marked Improvement was observed in 08 patients (32%), Moderate improvement was observed in 12 Patients (48%) and Mild improvement in 05 Patients (20%), No improvement was noticed in 00 patient (00%). In **Group B**, Marked Improvement was observed in 02 patients (08%), Moderate improvement was observed in 14 Patients (56%) and Mild improvement in 9 Patients (36%), No improvement was noticed in 00 patient (00%).

# **DISCUSSION**

Doshik predominance of *Kshina Shukra* is *Vata & Pitta* in which *Shukra Dhatu* is quantitatively and qualitatively vitiated. This condition described in Ayurveda can be mostly correlated with the Oligozoospermia according to modern science. In present clinical trial, most of the patients were observed having severe Oligozoospermia (0-5 million/ml), Excessive use of tobacco, *Vishamagni*, *Virudhashana*, excessive intake of *Katu*, *Lavana*, *Amla*, prolong sitting, use of synthetic and tight fitting garment and stress were the major causes of the Oligozoospermia. Both the group provide statically significant improvement on Sperm count, Semen volume and Sperm motility. *Chatuha Prasratika Basti* had provided statistically significant improvement in Sexual desire, *Daurbalya*, *Sadana* and *Bhrama* (Giddiness).

# **CONCLUSION**

It can be concluded from present clinical trial that both the therapies 'Chatuha Prasratika Basti and 'Satavari Ksira Paka' have definite role in the management of Oligozoospermia, But 'Chatuha Prasratika Basti' is comparatively better than 'Satavari Ksira Paka'

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**Table No.1 Effect of Therapy in Subjective Parameters** 

Sign & Symptoms	Gr	Mean Score		MD	%			D. malana	
		ВТ	AT	MD	Relief	S. D±	S. E±	P value	Result
Lack of Sexual Desire	A	0.72	0.08	0.64	88.88	0.48	0.097	0.0001	ES
	В	0.44	0.36	0.08	18.18	0.2769	0.055	0.0500	NS
Lack of penile Erection	A	0.32	0.04	0.28	87.50	0.5410	0.108	0.0313	S
	В	0.36	0.20	0.16	44.44	0.3742	0.074	0.1250	NS
Lack of Penile-rigidity	A	0.24	0.04	0.20	83.33	0.5000	0.100	0.0040	VS
	В	0.32	0.24	0.08	25.00	0.2769	0.055	0.0500	NS
Bhrama	A	0.48	0.04	0.44	91.66	0.5060	0.101	0.0001	ES
	В	0.20	0.08	0.12	60.00	0.3317	0.066	0.2500	NS
Daurbalya	A	1.32	0.32	1.00	75.75	0.5770	0.115	0.0001	ES
	В	0.96	0.68	0.28	29.16	0.4583	0.091	0.0156	S
Sadan	A	1.32	0.32	1.00	75.75	0.4080	0.081	0.0001	ES
	В	1.00	0.72	0.28	28.00	0.4583	0.091	0.0156	S

**Table No.2 Effect of Therapy in Objective Parameters** 

Sign & Symptoms	G r	Mean Score		MD	%	S. D±	S. E±	T	P value	Res
		BT	AT	WID	Relief	S. D±	S. EE	value	1 value	Res
Semen Volume	A	1.40	2.44	1.04	74.28	0.611	0.122	8.510	0.0001	ES
	В	1.72	1.96	0.24	13.95	0.435	0.087	2.75	0.0150	S
Sperm Count	A	5.64	19.08	13.44	238.29	3.776	0.755	17.79	0.0001	ES
	В	6.8	17.96	11.12	163.52	2.571	0.514	21.62	0.0001	ES
Sperm Motility	A	21.6	54.4	32.8	151.85	6.5	1.30	16.73	0.0001	ES
	В	40.4	44.8	4.4	77.8	6.50	1.30	3.381	0.0025	ES