ISSN 2456-3110
Vol 7 · Issue 10
November 2022

JAiMS
INTERNATIONAL

Journal of Ayurveda and Integrated Medical Sciences

www.jaims.in

JAIMS

An International Journal for Researches in Ayurveda and Allied Sciences

Maharshi Charaka
Ayurveda

Indexed

Journal of
Ayurveda and Integrated Medical Sciences
ISSN 2456-3110
ORIGINAL ARTICLE November 2022

To evaluate the efficacy of *Ashwattha Churna* with and without *Virechana Karma* in *Ksheena Shukra* (oligo-zoospermia) - A Comparative Study

Lokesh[1], Aarti[2], Kusum[3], Pankaj Kumar Katara[4]

[1,2,3]*Post Graduate Scholar, Department of Panchkarma, Ch. Brahm Prakash Ayurved Charak Sansthan, New Delhi, India.*

[4]*Assistant Professor, Department of Panchkarma, Ch. Brahm Prakash Ayurved Charak Sansthan, New Delhi, India.*

ABSTRACT

In present scenario cases of infertility arise abundantly which is a serious problem among the present generation as it affects the person mentally hence can deteriorate life. There are various etiological factors related to male infertility. In Ayurveda the quality of *Shukra* is mentioned by various *Acharya* to produce a healthy progeny. But *Shukra Dushti* can lead to differently abled or no progeny. There are various types of *Shukra Dushti* mentioned by *Acharya Sushrut, Ksheena -Shukra* is one of them. **Aim:** To compare the efficacy of *Virechana Karma* followed by *Ashwattha Churna* and *Ashwattha Churna* alone in *Ksheena Shukra* (oligozoospermia). **Objective:** To assess the efficacy of *Virechana Karma* followed by *Ashwattha Churna* in *Ksheena Shukra* and to assess the efficacy of *Ashwattha Churna* alone in *Ksheena Shukra* and to detect increase in sperm count. **Methods:** It is open label, randomized, interventional and comparative study. Group A - In this group *Virechana Karma* followed by *Ashwattha Churna* was given. Group B - In this group *Ashwattha Churna* was given. **Result:** Group A (*Virechana Karma* followed by *Ashwattha Churna*) there was an increase of 55% in sperm count, increase of 11.6% in sperm motility, relief in *Maithuna Ashakti* is 50%, relief in *Medra Vrishna Vedana* is 32%, and relief in *Chiraat Prashek* is 32%. **Conclusion:** Both group shows statistically significant results in parameters i.e., *Maithuna Ashakti, Medra Vrishna Vedana, Chiraat Prashek,* sperm count, motility.

Key words: *Ksheena Shukra, Virechana, Shukradhatu, Shukradushti*

INTRODUCTION

The chief desires of human life are *Praneshana*, *Dhaneshana* and *Paralokeshana*. In Ayurvedic classics there has been mentioned four *Purushartha* i.e., *Dharma, Artha, Kama* and *Moksha*. *Kama* is related with sexual gratification, which is one of the happiness in the life and to create a healthy progeny. As a result, human existence would be incomplete without fertility. Parenthood is one of the most cherished dreams of any couple, and a failure to conceive may lead to a strained marriage, divorce, or even suicide. *Kashyapa* explains that *'Aputrasya Gatirnasti'* without offspring, the individual would not be able to obtain *Moksha*. Many people in rural regions of India feel ashamed of their inability to have children because of the stigma attached to infertility. Infertility may have a negative impact on a woman's physical and social well-being, as well as on her male partner's social standing. *Ritu* (reproductive age and ovulation period), *Kshetra* (female reproductive system), *Ambu* (nutritional variables) and *Bija* (conception) are the most important elements (sperm and ovum). Reproductive health is required for this to occur. Infertility is caused by a malfunction in the system. According to Ayurvedic texts, *Shukradhatu* is responsible for reproducing the body. A standard classification of *Shukradusti* names eight distinct varieties. *Shukradusti* prevents a person from completing their *Chaturvidha Purushartha*. A form of *Shukradusti* known as *Ksheena Shukra* is one of them. The occurrences of Infertility are increasing now

Address for correspondence:
Dr. Lokesh
Post Graduate Scholar, Department of Panchkarma, Ch. Brahm Prakash Ayurved Charak Sansthan, New Delhi, India.
E-mail: mail.dr.lokesh@gmail.com

Submission Date: 13/09/2022 Accepted Date: 23/10/2022

Access this article online

Quick Response Code

Website: www.jaims.in

DOI: 10.21760/jaims.7.10.12

ISSN: 2456-3110 ORIGINAL ARTICLE November 2022

days due to change in life style, sociocultural changes and influence of media and other habits like Smoking, Alcohol, Tobacco chewing etc. In this era of fast food, we are taking food, which is adulterated by preservatives and many other chemicals.

Infertility affects one in every six couples, according to statistics gathered in the last several years.[1] Male infertility is one of the most common and serious of these conditions, affecting up to 30-40 percent of men.[2] Oligozoospermia, asthenozoospermia, and azoospermia are all contributing factors.[3] One of the most common causes of infertility is oligospermia. An oligozoospermia diagnosis is made if there are fewer than 20 million sperm per millilitre of blood or 40 million per ejaculate, according to the World Health Organization's Semen analysis criteria.[4] The sperm count should be at least 40 million/ml and the sperm motility should be at least 60%.[5] Even with a low sperm count (less than 05 million/ml), studies have shown that a woman may become pregnant if her sperm cells have strong Progressive Motility. It is similar to *Ksheena Shukra*, where *Shukra Dhatu* is reduced in both quantity and quality.

Ayurveda provides a glimmer of hope since it has a unique way of looking at *Ksheena Shukra. Shukra* is the seventh *Dhatu* in Ayurveda. *Dhatu Majja Dhatu* is the raw material for it.[6] the *Oja*, which provides the body with nourishment, is made up of the *Sapta Dhatus* as well as the *Saara*, which is accountable for the *Oja*.[7] *Shukra* should possess such a potency so as to conceive a lady.[8] *Shukra* being the ultimate *Dhatu* meant mainly for reproduction,[9] also attribute qualities as *Dhairya, Chyavana, Preeti, Dehabala, Harsha* etc. to males.[10] *Astha Shukra Dusthi* and *Ksheena Shukra* (Oligozoospermia), which are linked to *Dourbalya* and *Mukhashosha* and include the key *Klaibya, Shukra Kshaya*, and *Maithuna Ashakti*, may result from a variety of abnormalities, including deformities. *Ksheena Shukra* is a *Doshabala Pravrutta, Kruchra-Sadhyaroga* of *Shukravaha Srotodusti*, where *Dushita Vata* and *Pitta* are connected.[11] We may conclude that Oligo-asthenozoospermia belongs under the umbrella of *Sukraduşti,* which includes a variety of different clinical illnesses that affect the *Srotas* of the *Sukravaha*.

In the subject of Andrology, the study of herbal fertility agents is a key focus. It would be a huge help to the world's population, which is suffering greatly due to infertility, if the *Vajikarana* branch of Ayurveda could make a contribution to finding a solution to this issue. In addition to its aphrodisiac qualities, *Vajikarana* has a significant motto. "*Apatya Santankaraha*".[12] It provides progeny to infertile couple, sexual potency to the impotent at the same time therapy assures the excellency of progeny. *Avapeedaka Sneha* is mainly indicated in *Adhonabhigata Vikaras*, it alleviates *Pitta* and *Vata* & thus gives strength to pelvis and thighs. It is *Balya* and acts as *Vrushya*. According to Vaghbata, *Avapeedaka Snehapana* is administration of *Sneha* in large doses both before taking of food and after digestion of food.[13] *Sneha Virechana Karma* is regarded as *Shodhana's* preferred method of managing *Ksheena Shukra*. *Virechana Karma* is one of *Pitta's* most important therapy methods. The reduction of *Vata* is another important benefit. Before providing *Rasayana* and *Vajikarana*, this is one of the recommended *Shodhana Karma*.[14] Acharya Kashyapa has glorified the importance of *Virechana Karma* in the management of *Ksheena Shukra*. Because it purifies the *Beeja* (sperm) thus, making it effective in achieving Fertilization. It also improves sexual vigor (*Vrishata*) and helps in achieving good progeny (*Apatya*).[15] *Ksheena Shukra* has been the subject of several investigations; however, an effective and safe formulation is still required to address this issue. For the present clinical study herbal formulation - *Aswattha Churna* was selected. According to *Acharya Susruta Aswattha Churana* is *Vajikara Dravya*. It is due to its *Madhur Rasa* and *Snigdha Guna* properties. Keeping the fundamentals of management in mind the current study was conducted which entitled as – "To evaluate the efficacy of *Ashwattha Churna* with and without *Virechana Karma* in *Ksheena Shukra* (oligozoospermia) a comparative Study" with following aims and objective

Aim

To compare the efficacy of *Virechana Karma* followed by *Ashwattha Churna* and *Ashwattha Churna* alone in *Ksheena Shukra* (oligozoospermia).

ISSN: 2456-3110 ORIGINAL ARTICLE November 2022

OBJECTIVES

To assess the efficacy of *Virechana Karma* followed by *Ashwattha Churna* in *Ksheena Shukra*, to assess the efficacy of *Ashwattha Churna* alone in *Ksheena Shukra*, to detect increase in sperm count.

MATERIALS AND METHODS

This study was done on 60 registered of *Ksheena Shukra* (oligozoospermia) patients and randomly divided in two groups of 30 each.

Group A: In this group *Virechana Karma* followed by *Ashwattha Churna* was given.

Group B: In this group *Ashwattha Churna* was given.

Consent

Written informed consent was taken on prescribed Performa before the inclusion of patient in trial. They were briefed about merits and demerits of research plan before taking consent.

IEC Certificate No. CBP-IEC/ 2019/PK/MD/04

CTRI No. CTRI/2021/03/031627

Method of evaluation

Clinical screening

A detailed case history Performa was specially prepared for this purpose. All the following mentioned points were recorded in this Performa before initiating the trial.

Pre-trial screening

This was done before the commencement of the clinical trial.

- Semen Analysis
- Serum FSH
- Serum LH

Total 90 patients were screened out of basis of inclusion and exclusion criteria. Out of them 60 patients were fulfilled the clinical trial criteria and these patients were selected for clinical trial.

A. Selection of patient

The study was conducted on 60 clinically diagnosed and confirmed cases of *Ksheena Shukra* (oligozoospermia) from OPD of Ch. Brahm Prakash Ayurved Charak Sansthan, Khera Dabar, Najafgarh, New Delhi.

B. Criteria of diagnosis

The main criteria of diagnosis of patients were based on the cardinal associated sign and symptoms of disease based on the Ayurvedic and modern texts.

C. Criteria of inclusion

1. Sperm count < 15 million/ml.
2. Male patients belonging to 21yr to 45 years of age.
3. Patient suitable for *Virechana Karma*.

D. Exclusion criteria

1. Patients with azoospermia and aspermia.
2. Genetic defects like Klinefelter's syndrome.
3. Patients with diseases like Varicocele, Accessory sex gland infection, sexually transmitted diseases, and systemic diseases like DM etc.
4. Patient not suitable for *Virechana Karma*.

Grouping

Patients were randomly divided and studied under two Groups viz. Group A and Group B irrespective of religion, sex, occupation, cast etc.

Group A: In this group *Virechana Karma* followed by *Ashwattha Churna* was given.

Group B: In this group *Ashwattha Churna* was given.

Total Duration of trial: 45days for each Patient

Table 1: Showing procedure protocol

Procedure	Drug dose	Duration
Deepan and *Pachana*	*Deepan* and *Pachan* with *Chitrakadi Vati*	From 3 days till then achievement of *Langhita Lakshanas.*
Snehapana	*Snehapana* with *Go Ghrita* as per *Kostha* and *Agni* (in morning with empty stomach 6 am)	3-7 days

ISSN: 2456-3110 ORIGINAL ARTICLE November 2022

Abhyanga and *Swedana*	*Abhayang* with *Mahanarayana Tail* (45 mins) *Swedana Karma* (10-15 days)	3 days
Virechana	2 *Karsha*	*Trivrita Churna*[16]

Follow-up screening

Initial assessment - 0 day, assessment after *Virechana Karma* and 30th day done to evaluate their clinical status and to observe the effect or adverse effect of treatment.

Criteria of withdrawal

- During the course of trial if any serious condition or any serious adverse effects of occur which required urgent treatment.
- Patient himself wants to withdraw from the clinical trial.

Criteria of Assessment

All the patients were assessed for relief in sign and symptoms after the completion of trial. For subjective parameters grading/scoring pattern were adopted which is as follows;

Subjective Parameters

- Relief in the symptoms of *Ksheena Shukra Klaibyam*, *Sukraavisarga, Medra-Vrshnavedana, Maidhunaashakti* etc.

Objective parameters

- Semen analysis i.e., Total sperm count and Motility.
- Serum FSH
- Serum LH Subjective & objective parameters will be assessed before, and after *Virechana* and *Ashwattha Churna* intake**.**

For Statistical Analysis

The level of significance was prescribed in following manner:

- Non-significant (NS) - $p > 0.05$
- Significant (S) - $p < 0.05$
- Highly significant (HS) - $p < 0.001$
- Extremely significant (ES) - $p < 0.00$

Observation and Results

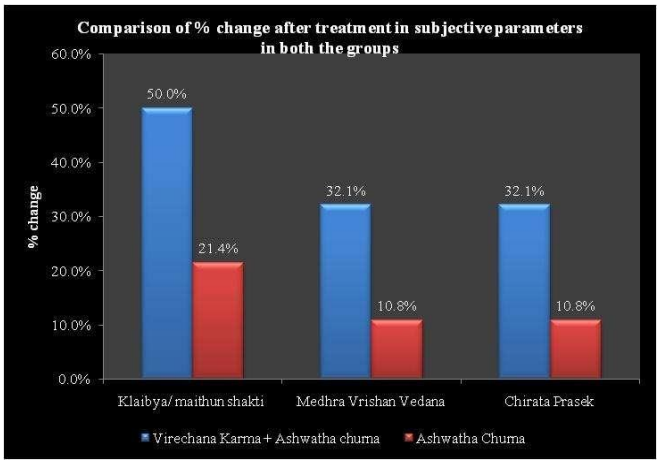

Table 2: Comparison of Semen Volume before and after treatment in both the groups

Group	Before Treatment		After Treatment		% Relief	Within group comparison	
	Mean	Standard deviation	Mean	Standard deviation		t-value	p-value
Virechana Karma + Ashwattha Churna	2.929	0.9100	3.34	0.831	14.03%	2.977	0.006 (*)
Ashwattha Churna	3.161	0.8504	3.13	.919	0.98 %	0.311	0.758
Between group comparison							
t-value	0.986		0.900				
p-value	0.328		0.372				

Within group comparison done using paired sample t-test.
Between group comparisons done using independent sample t-test.

(*) p-value is significant at 5% level of significance

ISSN: 2456-3110 **ORIGINAL ARTICLE** November 2022

Within group comparison revealed a significant difference after treatment in the semen volume (p-value = 0.006) in *Virechana Karma + Ashwattha Churna* group. Semen volume increased from 2.929 before treatment to 3.34 after treatment in *Virechana Karma + Ashwattha Churna* group. It was observed *that Ashwattha Churna* when administered with *Virechana Karma* showed a better effect on increasing semen volume than A*shwattha Churna* given alone (14.03%v/s 0.98%).

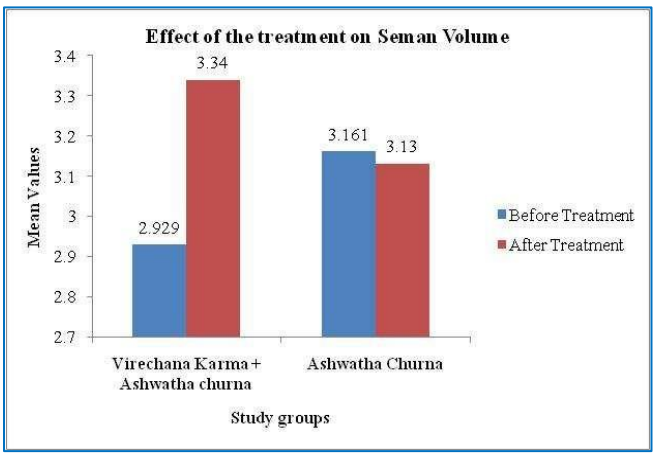

Table 3: Comparison of Total Sperm Count before and after treatment in both the groups

Group	Before Treatment		After treatment		% Relief	Within group comparison	
	Mean	Standard deviation	Mean	Standard deviation		t-value	p-value
Virechana Karma + Ashwattha Churna	11.70	2.451	26.35	15.984	125.21%	5.098	<0.001(*)
Ashwattha Churna	11.32	3.026	14.89	8.870	31.5 %	2.736	0.011 (*)
Between group comparison							
t-value	0.519		3.318				
p-value	0.606		0.002 (*)				

Within group comparison done using paired sample t-test. Between group comparison done using independent sample t-test.

(*) p-value is significant at 5% level of significance

Within group comparison showed a significant difference after treatment in total sperm count in both the groups (p-value < 0.05). Moreover, between group comparison also revealed a significant difference after treatment (p-value = 0.002). It was evident that total sperm count showed a significant improvement in *Virechana Karma + Ashwattha Churna* group (% change = 125.21%) as compared to in *Ashwattha Churna* group (% change = 31.5%)

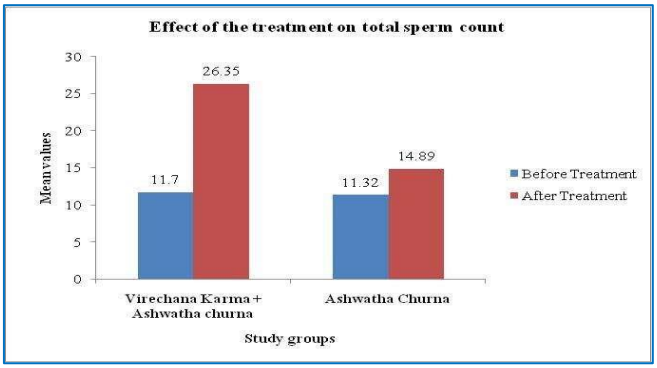

Table 4: Comparison of Motility (%) before and after treatment in both the groups

Group	Before Treatment		After Treatment		% Relief	Within group comparison	
	Mean	Standard Deviation	Mean	Standard Deviation		t-value	p-value
Virechana Karma + Ashwattha Churna	36.54	7.053	41.36	9.109	13.2 %	3.840	0.001 (*)

ISSN: 2456-3110 ORIGINAL ARTICLE November 2022

Ashwattha Churna	36.25	5.835	38.32	7.503	5.7 %	2.773	0.010 (*)
Between group comparison							
t-value	0.165		1.361				
p-value	0.869		0.179				
Within group comparison done using paired sample t-test. Between group comparison done using independent sample t-test. (*) p-value is significant at 5% level of significance							

Within group comparison showed a significant difference after treatment in motility in both the groups (p-value < 0.05). However, no significant difference was observed after treatment between both the groups. However, *Virechana Karma + Ashwattha Churna* group showed better results (% change = 13.2%) as compared to the group in which *Ashwattha Churna* was given alone (% change = 5.7%)

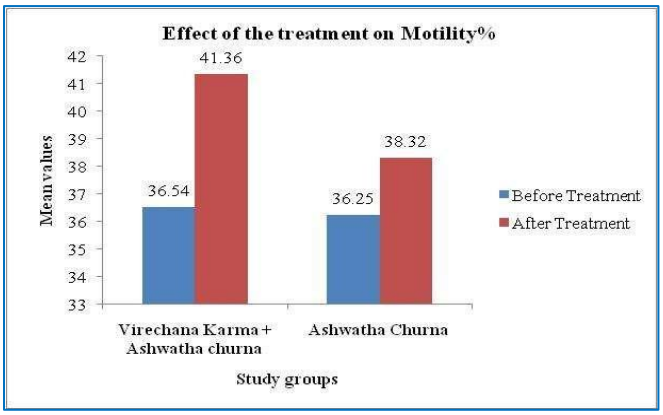

Table 5: Comparison of Liquefaction before and after treatment in both the groups

Group	Before Treatment		After Treatment		% Relief	Within group comparison	
	Mean	Standard Deviation	Mean	Standard Deviation		t-value	p-value
Virechana Karma + Ashwattha Churna	30.64	4.855	30.21	5.350	1.4 %	.383	0.704
Ashwattha Churna	30.36	7.689	32.61	7.218	7.4 %	-2.417	0.023 (*)
Between group comparison							
t-value	0.166		1.409				
p-value	0.869		0.164				
Within group comparison done using paired sample t-test. Between group comparisons done using independent sample t-test. (*) p-value is significant at 5% level of significance							

Significant difference after treatment was observed in liquefaction in *Ashwattha Churna* group (p-value = 0.023). However, no significant difference was observed after treatment between both the groups.

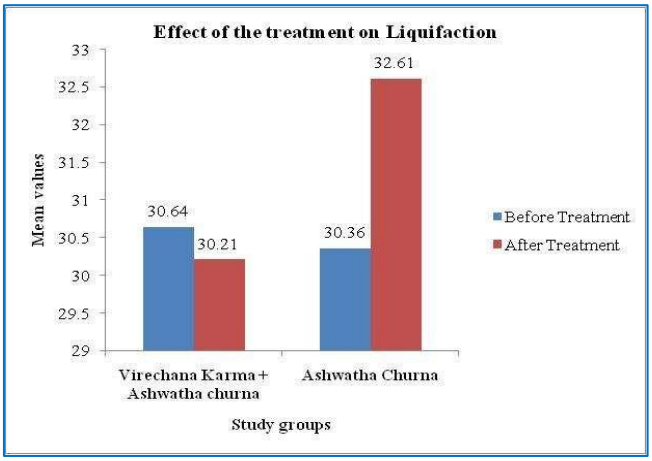

Table 6: Comparison of Total abnormal forms before and after treatment in both the groups

Group	Before Treatment		After Treatment		% Relief	Within group comparison	
	Mean	Standard Deviation	Mean	Standard Deviation		t-value	p-value
Virechana Karma + Ashwattha Churna	34.46	8.090	33.11	7.932	3.9 %	1.520	0.140

ISSN: 2456-3110 ORIGINAL ARTICLE November 2022

Ashwattha Churna	33.93	8.645	36.43	9.315	7.4 %	3.000	0.006 (*)
Between group comparison							
t-value	0.239		1.437				
p-value	0.812		0.157				
Within group comparison done using paired sample t-test. Between group comparison done using independent sample t-test. (*) p-value is significant at 5% level of significance							

Significant difference after treatment was observed in total abnormal forms *in Ashwattha Churna* group (p-value = 0.006). However, no significant difference was observed after treatment between both the groups.

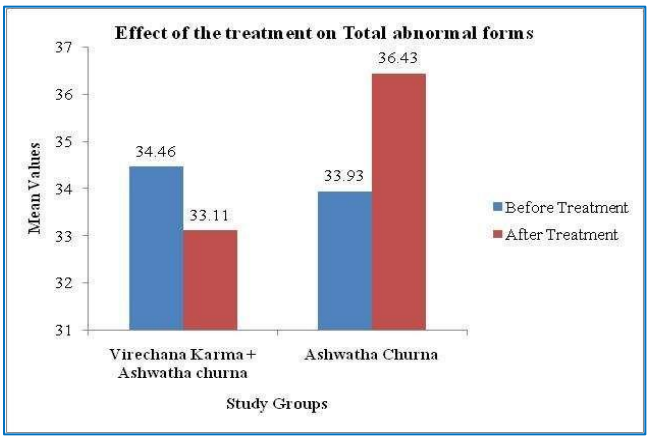

Table 7: Comparison of Serum LH before and after treatment in both the groups

Group	Before Treatment		After Treatment		% Relief	Within group comparison	
	Mean	Standard Deviation	Mean	Standard Deviation		t-value	p-value
Virechana Karma + Ashwatha Churna	3.72	1.791	3.75	1.749	0.8 %	0.432	0.669
Ashwatha Churna	3.65	1.589	3.78	1.533	3.56 %	2.201	0.036 (*)
Between group comparison							
t-value	0.166		0.054				
p-value	0.869		0.957				
Within group comparison done using paired sample t-test. Between group comparison done using independent sample t-test. (*) p-value is significant at 5% level of significance							

Significant difference after treatment was observed in Serum LH levels in *Ashwattha Churna* group (p-value = 0.036). Mean serum level in *Ashwattha Churna* group before treatment was 3.65 which increased to 3.78 after treatment. However, no significant difference was observed after treatment between both the groups

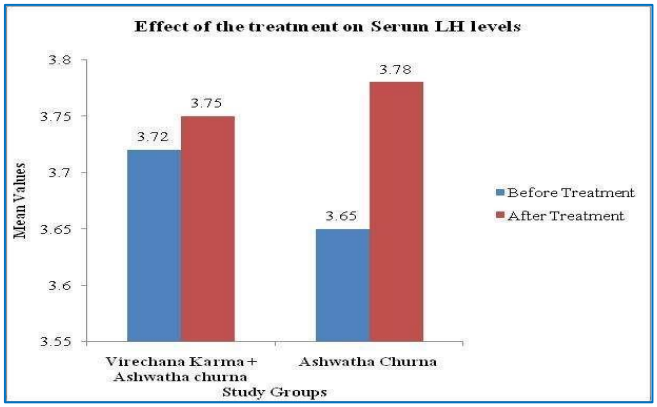

Table 8: Comparison of Serum FSH before and after treatment in both the groups

Group	Before Treatment		After Treatment		% Change	Within group comparison	
	Mean	Standard Deviation	Mean	Standard Deviation		t-value	p-value
Virechana Karma + Ashwat	5.99	3.122	5.95	3.070	0.66 %	0.323	0.749

ISSN: 2456-3110 ORIGINAL ARTICLE November 2022

tha Churna							
Ashwatha Churna	7.02	2.214	6.81	2.175	3.0%	1.965	0.060
Between group comparison							
t-value	1.425		1.218				
p-value	0.160		0.228				

Within group comparison done using paired sample t-test.

Between group comparisons done using independent sample t-test.

No significant difference was observed in the FSH levels after treatment in both the groups. Moreover, between groups analysis also revealed no significant difference in after treatment serum FSH levels in both the groups.

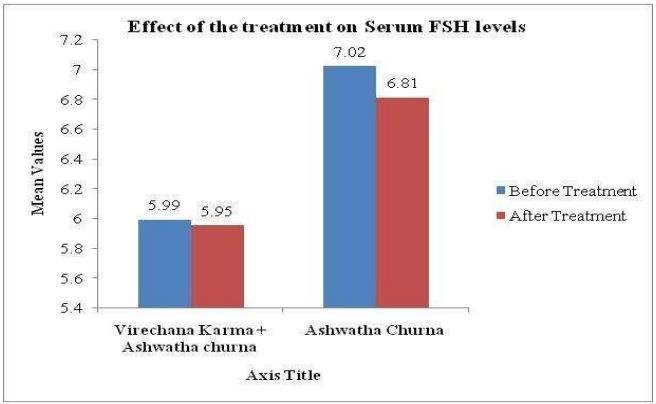

Table 9: Comparison of Viscosity before and after treatment in both the groups

Viscosity		*Virechana Karma + Ashwattha Churna*	*Ashwattha Churna*	Between Group p-value
Before Treatment	**Thick**	9 (32.1%)	12 (42.9%)	0.408
	Thin	19 (67.9%)	16 (57.1%)	
After Treatment	**Thick**	16 (57.1%)	16 (57.1%)	1.000
	Thin	12 (42.9%)	12 (42.9%)	
Within Group p-value		0.016 (*)	0.125	

Within group p-value compared using mc-nemar test Between group p-value compared using chi-square test

(*) p- value is significant at 5% level of significance

Within group comparison using mc-nemar test revealed a significant difference (p-value = 0.016) in the viscosity in the *Virechana Karma + Ashwattha Churna* group

Table 10: Comparison of PH before and after treatment in both the groups

PH		*Virechana Karma + Ashwattha Churna*	*Ashwattha Churna*	Between Group p-value
Before Treatment	**Acidic**	1 (3.6%)	2 (7.2%)	0.601
	Alkaline	27 (96.4%)	26 (92.8%)	
After Treatment	**Acidic**	0	1 (3.6%)	1.000
	Alkaline	28 (100.0%)	27 (96.4%)	
Within Group p-value		-	-	

Within group p-value compared using mc-nemar test

Between group p-value compared using chi-square test

DISCUSSION

Klaibya / Maithuna Ashakti - In Group A, 23 patients were having *Maithuna Ashakti* which reduced to 9 after giving *Virechana Karma* and *Ashwattha Churna*, While in Group B, 21 patients were having *Maithuna Ashakti* which reduced to 15 after given only *Ashwattha Churna*. Hence, it is concluded that in group A, 14 patients got relief and in Group B, 6 patients got relief. So, *Virechana Karma* and *Ashwattha Churna* is best to improve *Maithuna Shakti.* In *Virechana Srotoshudhi* occur and strength of *Indriya* increase. So, Group A patient got more relief than Group B.

Medra Vrishan Vedana - In Group A, 13 patients were having *Medra Vrishan Vedana* which reduced to 4 after giving *Virechana Karma* and *Ashwattha Churna*, While in Group B, 12 patients were having *Medra Vrishan*

ISSN: 2456-3110 ORIGINAL ARTICLE November 2022

Vedana which reduced to 9 after given only *Ashwattha Churna*. Hence, it is concluded that in group A, 9 patients got relief and in Group B, 3 patients got relief. So, *Virechana* along with *Ashwattha Churna* is best for treating *Medra Vrishan Vedana* than only *Ashwattha Churna*.

Chiraat Prasek - In group A, 10 patients were having *Chiraat Praseka* which reduced to 1 in group A while in group B it reduced from 12 to 9. Hence, it can be concluded that in Group A 9 patients got relief while in Group B only 3 got relief. So *Virechana* along with *Ashwattha Churna* is best for treating *Chiraat Praseka* than only *Ashwattha Churna*. By *Virechana Karma, Apana Vayu* comes in its normal state as there is proper evacuation of faeces, micturition on so same with ejaculation of semen.

Semen Volume

In Group A 3.34 mean was reduced to 2.92 which means improvement of 12.5 % while in Group B Mean was 3.13 which reduced to 3.16 which means no significant improvement was present**.**

Total sperm count

In group A mean was 26.35 which reduced to 11.70 which means improvement of 55.5% while in Group B mean was 14.89 which reduced to 11.32 which means improvement of 23.9%. *Medhra , Vrishan, Kati* and *Vankshan* are site of *Apana Vayu*, when *Apana Vayu* gets vitiated leads to *Ksheena Shukra* with this imbalance of *Jatharagni* and *Dhatvagni* also results *Ksheena Shukra*, after *Virechana Karma* vitiated *Apana Vayu* gets *Anulomana* and *Pitta Dosha* gets balanced which is the main entity of body represents *Agni* and maintain *Jatharagni* and *Dhatvagni* and *Acharya Charak* has mentioned that *Sanshodhana Karma* is itself leads *Vrishyata* and *Aswattha Churna* have *Vajikarna* effects hence, *Virechana Karma* followed by *Aswattha Churna* results in increased sperm count.

Motility

In group A mean was 41.36 which reduced to 36.54 which means improvement of 11.65% while in Group B mean was 38.32 which reduced to 36.25 which means improvement of 5.4 %. In *Ksheena Shukra, Vata* and *Pitta Doshas* gets vitiated, for removing vitiated *Pitta, Virechana Karma* is applied, it also leads to *Srotoshodhana* and active transformation of *Dhatu* through *Dhatvagni Vyapara* and the most desirable *Shuddha Shukra* is formed. The whole procedure helps in eliminating the oxidants (*Aama*) presents in *Shukravaha Srotsas*, which obstacle function of *Shukra* by doing so, increase activity of *Shukra* (sperm).

Liquification

In group A mean was 30.21 which increased to 30.64 while in Group B Mean was 32.61 which was reduced to 30.36 which shows improvement of 6.8%. No significant result seen.

Total abnormal forms

In group A mean was 33.11 which increased to 34.46 while in Group B 36.43 which reduced to 33.93 which shows improvement of 6.8%. No significant result seen.

CONCLUSION

Both group shows statistically significant results in parameters i.e., *Maithuna Ashakti, Medra Vrishna Vedana, Chirat Prashek*, sperm count, motility. Group A (*Virechana Karma* followed *by Ashwattha Churna*) there was an increase of 55% in sperm count, increase of 11.6% in sperm motility, relief in *Maithuna Ashakti* is 50%, relief in *Medra Vrishna Vedana* is 32%, and relief in *Chiraatprashek* is 32%. Upon comparing both the group, statistically significant difference observed in parameters i.e., *Maithuna Ashakti, Medra Vrishna Vedana, Chirat Prashek*, sperm count, motility. Group A was found statistically (p-value = 0.011) and is clinically better than group B in management of *Ksheena Shukra.*

REFERENCES

1. Stedman‟s Medical Dictionary, 25th Edition Illustrated, Page No. 1083.
2. Hawkins& Bourne, Shaw‟s Textbook of Gynecology, 12th Edition, B. I. Churchill Livingstone, New Delhi, Page No. 157.
3. www.drmalpani.com/oligospermia.html as seen on 20/12/2015

ISSN: 2456-3110 **ORIGINAL ARTICLE** November 2022

4. http://www.fertilityfriends.co.ukforumindex.phptopic=82727.0 03/03/2016
5. Harrison's Principles of Internal Medicine, Volume-I, edited by Anthony S Fauci & Kasper, Braunwald, Stephen L. Hauser, Loscalzo, 16th edition-2005, Page No.280.
6. Charaka Samhita, Ayurveda Dipika's Ayushi Hindi Commentary, Volume-II Edited by Vd.Harishchandra Singh Kushwaha. Choukambha Orientalia. Varanasi, Reprint Edition-2011, Chikitsasthana -15th chapter, sloka no.16, Page No.383.
7. Astanga Hridaya of Vagbhata with Sarvanga Sundari commentary of Arunadatta and Ayurveda Rasayana commentary of Hemadri, Edited by Pt.Hari Sadashivashastri paradhakara, Chaukhambha Sanskrit Samsthana, Varanasi, Reprint Edition-2010, Sutrasthana, 11th chapter, Sloka no.37, Page no.189.
8. Charaka Samhita, Ayurveda Dipika's Ayushi Hindi Commentary, Volume-II Edited by Vd.Harishchandra Singh Kushwaha. Choukambha Orientalia. Varanasi, Reprint Edition-2011- Chikitsasthana -2nd chapter,4th pada, sloka no.50, Page No.67.
9. Charaka Samhita, Ayurveda Dipika's Ayushi Hindi Commentary, Volume-II Edited by Vd.Harishchandra Singh Kushwaha. Choukambha Orientalia. Varanasi, Reprint Edition-2011, Chikitsasthana -15th chapter, sloka no.16, Page No.383
10. Susrutha Samhita, Ayurveda Tatva Sandeepika Commentary, Volume-I Edited by Kaviraja Ambikadatta shastri, Choukambha Orientalia, Varanasi. Reprint Edition 2012, Sutrasthana-15th Chapter, sloka no.7, Page No.75.
11. Susrutha Samhita, Ayurveda Tatva Sandeepika Commentary, Volume-I Edited by Kaviraja Ambikadatta shastri, Choukambha Orientalia, Varanasi. Reprint Edition 2012, Sutrasthana-2nd Chapter, sloka no.4, Page No.11.
12. Astanga Hridaya of Vagbhata with Sarvanga Sundari commentary of Arunadatta and Ayurveda Rasayana commentary of Hemadri, Edited by Pt.Hari Sadashivashastri paradhakara, Chaukhambha Sanskrit Samsthana, Varanasi, Reprint Edition-2010, Uttarasthana, 40th chapter, Sloka no.1, Page no.940.
13. Ashtanga Hridaya, Sarvanga Sundari commentary of Arunadatta, Choukambha Orientalia, Varanasi-2002, Sutrasthana-4th Chapter, sloka no.6 Page No.41.
14. Ashtanga Hridaya, Sarvanga Sundari commentary of Arunadatta, Choukambha Orientalia, Varanasi-2002, Sutrasthana-4th Chapter, sloka no.6 Page No.41.
15. Kashyapa Samhita, by P.V. Tiwari, English translation, Choukhamba Sanskrit sansthana, Varanasi 1996. Siddhi sthana,2nd chapter, 7th shloka, Page No.266&267.
16. Sastry JLN. Dravyaguna Vijanana. Vol. II. Varanasi: Chaukhambha Orientalia; 2008.p. 363.

How to cite this article: Lokesh, Aarti, Kusum, Pankaj Kumar Katara. To evaluate the efficacy of Ashwattha Churna with and without Virechana Karma in Ksheena Shukra (oligo-zoospermia) - A Comparative Study. J Ayurveda Integr Med Sci 2022;10:94-103. http://dx.doi.org/10.21760/jaims.7.10.12

Source of Support: Nil, **Conflict of Interest:** None declared.

****