



ORIGINAL RESEARCH ARTICLE

EFFECT OF BALADI YAPANA BASTI AND VAJIKARANA YOGA IN THE MANAGEMENT OF OLIGOASTHENOZOOSPERMIA

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ABSTRACT

Background: As far as male infertility is concerned 30-40% infertility is associated with male factor in which conditions viz. Oligozoospermia, high Viscosity of semen, low sperm motility and low volume semen are generally noted. For successful fertility sperm count should be 40 mill/ ml or more, but studies have shown that if sperm cells are having good progressive motility besides of less sperm count (less than 10 mill / ml), there was a reasonable, probability of conception. **Objectives:** To compare the effect of Baladi Yapan *Basti* and their combined regimen in the patient of Shukradushti. **Methods:** Group – A (*Basti* Group): Patients of this group were given a course of 21 Baladi Yapan *Basti* in the dose of 600 ml with 3 days interval in 3 terms by classical method with local Abhyanga and Swedan. The duration of treatment was one month.(30 days). Group B (*Basti* & Vajikarana Yoga): Patients of this group were given Baladi Yapan *Basti* in the same way as in Group A and Vajikarana Yoga in the dose of 5 gram thrice daily with Anupana of water in the form of granules. The duration of treatment was one month. **Results:** In *Basti* group 10% patients able to impregnate their wives where as 20% patients attached complete remission. Markedly improvement was observed in 30%. Moderate improvement was found 20%. In *Basti* & Vajikarana yoga group 10% patients also able to impregnate their wives. Whereas 50% of patients were found complete remission and markedly improvement was reported in 20%. 10% patients got moderately improvement. **Conclusion:** In this study both the groups more effectively increased the sperm count and motility along with sexual parameters but the combined regimen offered supremacy over *Basti* group and offered magnanimous results.

Keywords: Panchakarma, Baladi Yapan *Basti*, Vajikarana Yoga, Oligoasthenozoospermia, Vataja Shukra Dushti

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INTRODUCTION:

The idea of man as perpetuator of his race has been projected and repeatedly stressed in Ayurvedic literatures. A man incapable of procreation is described as shadow less, single branched foul – smelling tree devoid of fruits that has no purpose or plays no useful role in the world^[1]. To get the progeny, both the partners should be equally fit, for which non-vitiated and healthy conditions of *Shukra*(sperm) and *Shonita* (ovum) are the basic requirements. Male factor of infertility was mainly due to defective spermatogenesis and also due to inadequate quality of sperm in both morphology and motility.

The possession of *Shuddha Shukra* (potent sperm) and normal *Manobhavas* (mental status) are essential for fertility. The sound health of the offspring is also determined by the *Shuddha Shukra*^[2]. If there is a *Dusti* in *Shukra* it will definitely affect the fertility factor. *Vajikarana* is a particular branch of Ayurveda, which deals with such factors. According to modern aspect as far as male infertility is concerned 30-40% infertility is associated with male factor in which conditions viz. Oligozoospermia, high Viscosity of semen, low sperm motility and low volume semen are generally noted. For successful fertility sperm count should be 40 mills/ ml or more, but studies have shown that if sperm

cells are having good progressive motility besides of less sperm count (less than 10 mills / ml), there was a reasonable, probability of conception. That's why after keeping importance of sperm motility with sperm count the disease Oligoasthenozoospermia is selected, which was found as the main etiology of male infertility.

In Ayurveda all these diversified entities are enriched under the cover of *Vataja Kshina Shukradushti*. The modern researches in treating Oligoasthenozoospermic condition during the past few decades have also not resulted in any major break though; on other hand Ayurvedic management principle may provide good improvement in this condition as described as a special branch of Vajikarana when applied along with selected *Vrishya* drugs.

For the present study *Baladi Yapan Basti*^[3] and *Vajikarana Yoga*^[4] were selected to manage *Vataj Ksina Shukra* condition mentioned in the classics. *Baladi Yapan Basti* contains *Bala (Sida Cordifolia)*, *Atibala (Abutilian Indicum)*, *Apamarga (Acaranthus Aspera)*, *Atmagupta (Mucuna Pruriens)* and *Yava (Hordeum vulgare)* in the form of *Yavakut* (curse powder). *Kalka* (paste) of *Madanphala (randia dumetorum)*, *Yastimadhu(Glycyrrhiza glabra)* & *Pippali (Piper longum)*. The other ingredients are

Kshira (Cow's milk), *Guda* (jiggery) and *Tila Taila* (sesame oil).

To compare the effect of *Baladi Yapan Basti*, a compound drug (*Vajikarana Yoga*) was selected that contains *Kokilaksa*, *Goksura*, *Atmagupta*, *Shatavari* and *Masa*.

Both the selected drugs are supposed to improve the quality and quantity of *Shukra* of any individual due to the combination of various drugs which are having properties like; *Vṛisya*, *Shukrala*, *Vajikarana*, *Balya*, *Bramhana* and *Rasayana*.

OBJECTIVES

- 1) To study the semenogram pattern in the patients of *Shukradusti* i.e. Oligoasthenozoospermia.
- 2) To study the effect of *Baladi Yapan Basti* and *Vajikarana Yoga* in their combined regimen in the patient of *Shukradusti*.
- 3) To compare the effect of *Baladi Yapan Basti* and their combined regimen in the patient of *Shukradusti*.

MATERIALS & METHODS

For the present study, a total of 24 patients were selected randomly from the O.P.D. of *Vajikarana* Section of *Kayachikitsa* Department of I.P.G.T. & R.A., Gujarat Ayurveda University, Jamnagar. The patients were selected regardless of their age, religion, socio economic status etc. fully satisfying the clinical criteria for diagnosis of Oligoasthenozoospermia

Selection of the patients

- 1) Patients having classical symptoms depicted under the heading of the *Shukradusti* (*Vataj Ksina Shukra*) in various Ayurvedic texts along with semenogram finding like abnormal physical character, sperm count and motility.
- 2) The W.H.O. criteria (1992) for semenogram i.e. sperm count < 40 mill/ml and motility < 50% SLP + RLP was considered as Oligoasthenozoospermia.

For the detailed examination, the patients were enquired for their family history, personal history, previous treatment, history of marital status, period of infertility etc. on the basis of research proforma specially prepared for this purpose.

Intervention:

The patients of Oligoasthenozoospermia were randomly divided into two groups.

Group – A (*Basti* Group)

Patients of this group were given a course of 21 *Baladi Yapan Basti* in the dose of 600 ml with 3 days interval in 3 terms by classical method with local *Abhyanga* and *Swedana*. The duration of treatment was one month.

Group – B (*Basti & Vajikarana Yoga*)

Patients of this group were given *Baladi Yapan Basti* in the same way as in Group - A and *Vajikarana Yoga* in the dose of 5 grams thrice daily with Anupana of water in

the form of granules. The duration of treatment was one month (30 days).

Investigations: Routine hematological, urine and stool examination were carried out before the treatment to assess the general health of the patient. Specific biochemical examinations were also carried out to exclude other pathology and all investigative procedures including semenogram were also performed after the treatment.

RESULTS:

Table 1: Category and gradation wise distribution of 20 patients of Oligoasthenozoospermia

Category	No. of Patients		Total	%
	BG	BG+VY		
Oligozoospermia				
Severe (<5 mill/ml)	2	2	4	16.67
Moderate (>5-<20 mill/ml)	6	2	8	33.33
Mild (>20-<40 mill/ml.)	4	8	12	50.00
Normal (>40 mill/ml.)	0	0	0	00.00
Asthenozoospermia				
Severe (<10%)	2	2	4	16.67
Moderate (>10% - 30%)	3	0	3	12.50
Mild (>30% - 50%)	7	10	17	70.83
Normal (>50%)	0	0	0	00.00

The total 24 patients of Oligoasthenozoospermia were graded on the basis of semenogram. Maximum 50% patients of Oligozoospermic were having sperm count between 20 to 40 mill/ml, 33.33% of patients were having sperm count between 5 to 20

Assessment Criteria: The semen samples of the patients were collected before and after the treatment. The analysis was done as per the recommendations of WHO (1992) before and after treatment. The assessment of therapies was made by adopting two parameters.

- 1) Semen Analysis : This was done as per recommendation of WHO (1992)
- 2) Sexual Health Scoring

mill/ml. where as 16.67% were having sperm count between 0 to 5 mill/ml.

Maximum 70.83% of Asthenozoospermic patients were having active motility between 30-50%, 16.67% asthenozoospermic patient were having percentage of active motility between 0-10%

where as remaining 12.5% of patients shown active motile sperm between 10 to 30 %.

Table 2: Effect of therapy on Seminal Parameters in 10 patients of Oligoasthenozoospermia

Seminal Parameters	B.T.	A.T.	%	S.D.±	S.E.±	't'	P
Liquefaction Time	25.50	20.00	21.56	5.5025	1.7413	3.15	<0.05
Volume	2.48	3.06	18.95	0.5769	0.1825	3.17	<0.05
pH	7.24	7.02	3.03	0.2740	0.0867	2.55	<0.05
Sperm Viability	45.40	56.20	19.22	7.495	2.372	4.55	<0.01
Sperm count	16.34	27.04	39.57	14.418	4.562	2.35	<0.05
Oligozoospermic grade							
RLP	8.40	23.30	63.95	13.584	4.299	3.47	<0.01
SLP	23.20	30.90	24.92	8.380	2.652	2.90	<0.05
NP	50.30	30.90	38.57	14.299	4.525	4.29	<0.01
Total Abnormality	39.50	28.30	28.35	15.985	5.058	2.21	>0.05

Table 3: Effect of Basti Group on Oligozoospermic grade in 10 patients of Oligoasthenozoospermia

Grade	BT		AT	
	No.	%	No.	%
Severe (<5 mill/ml)	2	20	2	20
Moderate (>5-<20 mill/ml)	5	50	2	20
Mild (>20-<40 mill/ml)	3	30	4	40
Normal (>40 mill/ml)	0	00	2	20

Before administration of *Basti* therapy 50% of patients of moderate grade were reduced to 20% after *Basti* therapy, severe grade patient remain in the same grade after treatment. But 30% of patients from mild grade, in which 20% patients attained normal count and 10% remain in the mild grade.

Table 4: Effect of Basti on Oligozoospermic grade in 10 patients of Oligoasthenozoospermia

Oligozoospermic grade	BT	AT			
		Severe	Moderate	Mild	Normal
Severe	20	20	-	-	-
Moderate	50	-	20	30	00
Mild	30	-	-	10	20
Normal	-	-	-	-	-
Total	100	20	20	40	20

Before administration of *Basti* therapy, 20% patients of severe grade remains in the same grade, very small change in their sperm count was noted after treatment. 50% patients of moderate grade turn to 30% of mild grade and

20% remains in the same grade after treatment. 30% patients were of mild grade, in which 20% attained normozoospermia and 10% remains in the same grade after *Basti* therapy.

Table 5: Effect of *Basti* on Asthenozoospermic grade in 10 patients of Oligoasthenozoospermia

Grade	BT		AT	
	No.	%	No.	%
Severe (<10%)	2	20	1	10
Moderate (>10% - 30%)	3	30	0	00
Mild (>30% - 50%)	5	50	4	40
Normal (>50%)	0	0	5	50

Before *Basti* therapy 20% of patients were in severe grade which reduced up to 10% after the therapy. The moderate grade 30% patients increase their motility and there was no patients in moderate grade after

treatment. Before treatment 50% patients were of mild grade, in which 40% patients were attained normal motility and 10% remains in the same grade.

Table 6: Effect of *Basti* on Asthenozoospermic grade in 10 patients of Oligoasthenozoospermia

Asthenozoospermic grade	BT	AT			
		Severe	Moderate	Mild	Normal
Severe	20	10	-	10	10
Moderate	30	-	-	10	-

Mild	50	-	-	20	40
Normal	-	-	-	-	-
Total	100	10	-	40	50

Before administration of *Basti* therapy 20% of patients were in severe grade in which 10% remain in the same grade after treatment and 10% increased their motility and turn to mild

grade. 30% of patients of moderate grade turn to mild grade after treatment. 50% mild grade patients turned to normal grade after *Basti* therapy.

Table no. 7: Total Effect of therapies

Category	BG		BG + VY		Total	%
	No	%	No	%		
Conceived	1	10	1	10	2	10
Complete remission	2	20	5	50	7	35
Markedly improved	3	30	2	20	5	25
Moderately improved	2	20	1	10	3	15
Improved	1	10	0	00	1	05
Unchanged	1	10	1	10	2	10
Deteriorated	0	00	0	00	0	00

Total effect of therapy: In *Basti* group 10% patients able to impregnate their wives where as 20% patients attached complete remission. Markedly improvement was observed in 30%. Moderate improvement was found 20% and 10% of patients shows mild improved, 10% of patients were remained unchanged. After treatment none of them was deteriorated. In *Basti & Vajikarana yoga* group 10% patients also able to impregnate their wives. Whereas

50% of patients were found complete remission and markedly improvement was reported in 20%. 10% patients were moderately improvement and 10% was found unchanged none of them was deteriorated.

Therefore in total 10% patients were conceived, 35% patients got complete remission, 25% patients were markedly improved, 15% patients were moderately improved, 5% mild improved and 10% patients

remaining unchanged. No patients were reported as having deteriorated semenogram after the treatment.

DISCUSSION:

Increase in sperm count by both the treatment reveals that both *Baladi Yapan Basti and Basti & Vajikarana yoga contains Shukra Janaka, Shukra vardhaka and Shukra śodhaka*^[5] properties.

The effect of the therapies on Oligozoospermic grade indicate that *Basti* therapy was more effective in moderate grade of Oligozoospermia, hence it can be said that *Basti* is effective at both primary level as well as particular stages of spermatogenesis. These effects of *Basti* may be due to presence of *Shukrala, Vṛisya* and *Vajikarana* properties of all the contents whereas *Basti & Vajikarana yoga* provided improvement in mild and moderate grade of Oligozoospermia. But it cannot be told that this treatment is not effective on various stages of spermatogenesis because this group improved more patient, turned to Normozoospermic condition.

Basti group provided improvement represented by increase in RLP motility, SLP motility and decrease in NP motility better than *Basti & Vajikarana yoga* group. It does not mean that *Basti & Vajikarana yoga* group is having less Asthenozoospermic effect than *Basti* group. There is very small difference. Both the group shows better improvement in

asthenozoospermic conditions. Ingredients of *Basti* as well as *Vajikarana yoga* are having *Shukrala* and *Vṛisya* properties.

The increase in viability of sperm was found by both the therapies. It may be due to *balya* and *samtarpan gunas* which might have enhanced the membrane integrity of sperms by acting as vitalizing agents. Among all sexual health parameters all were improved significantly by both the groups which mean both the drugs are effective in corresponding *Apan Vata dusti*^[7].

After that it can be concluded that all the ingredients of *Basti* as well as *Basti & Vajikarana yoga* were *Vata Pitta hara* which is the main factor for making *samprapti vighatan of Shukradusti*^[6] (Oligoasthenozoospermia). *Madhura rasa, guru, snigdha gunas, sheeta virya, madhur vipaka, balya, Vṛisya & Shukrala*^[8] action of *Vajikarana yoga* provided better improvement in sperm count and motility. Due to improved status of health and action of ingredients like *Kamottejaka, Harsa* etc. showed increased sexual desire capacity, frequency and duration. Hence, getting orgasm or sexual satisfaction has shown better by *Basti & Vajikarana yoga* group.

CONCLUSION:

In this study both the groups more effectively raised the sperm count and motility along with sexual parameters but the combined regimen

offered supremacy over *Basti* group and offered magnanimous results.

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