ORIGINAL RESEARCH PAPER

Ayurveda

A SINGLE CASE STUDY TO ASSESS THE EFFECT OF ASHWAGANDHA GHRITA IN MANAGEMENT OF MALE INFERTILITY WITH SPECIAL REFERENCE TO OLIGOASTHENOZOOSPERMIA .

KEY WORDS: Male Infertility, Oligoasthenozoospermia, Ashwagandha Ghrita.

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ABSTRACT

Infertility is a disease of the male and female reproductive system defined by failure to achieve a pregnancy after 1 or more years of regular unprotected coitus. Infertility can be caused by male, female, a mix of male and female, or by unknown causes. However, poorer fertility rates in both men and women have been related to environmental and lifestyle variables like drinking, smoking, being obese, and being exposed to pollution. Infertility couples deal with a great deal of social shame, mental strain, depression, anxiety, and poor self-esteem difficulties, all of which have a significant negative impact on their lives. WHO estimate states that 15% to 20% of the general population is infertile. Of this, 20% to 40% can be attributed to the male factor. As a result, it is necessary to address the growing issue of male infertility in the current era. Oligoasthenozoospermia, which is present in 16.7% of cases, is one of the causes commonly associated with male infertility. A 32 year old male with low sperm count & decreased sperm motility was diagnosed with Oligoasthenozoospermia, was treated with Ashwagandha Ghrita Orally. After a continuous oral treatment for 3 months, there was a marked increase in sperm count & motility. Further the couple tried for pregnancy & wife conceived. This shows that, in the current case study, sperm count and motility markedly improved after three months of treatment for Oligoasthenozoospermia with Ashwagandha Ghrita.

INTRODUCTION -

Infertility refers to couples who have been trying since 1 year with regular unprotected coitus & are unable to conceive. Infertility can be due to male factors or female factors or both. Coming to male factors causing male infertility , In India , its prevalence is around 23%.

There are multiple causes for male infertility, which can be broadly classified due to their general etiology. These include endocrine disorders (usually due to hypogonadism) at an estimated 2% to 5%, sperm transport disorders (such as vasectomy) at 5%, primary testicular defects (which include abnormal sperm parameters without any identifiable cause) at 65% to 80% and idiopathic (where an infertile male has normal sperm and semen parameters) at 10% to 20%.

The most significant of these are low sperm concentration (oligospermia), poor sperm motility (asthenospermia) & abnormal sperm morphology (teratospermia). Oligoasthenozoospermia includes low sperm count & decreased sperm motility.

According to Ayurveda, Beeja (including PurushBeej and StreeBeeja) should be pure for Garbhotpadana, or conception. PurushBeeja / ShukraDhatu requires it to be pure, sufficient in amount, drava, snigdha, madhura rasa, and saumyaguna. Garbhotpadana does not take place if above qualities are absent.

According to Ayurveda, treatment is done by correcting the Doshas and Dhatus involved. Vajeekarana Dravya (increasing sexual potency), Rasayana (nourishing tissues), Brumhana (nourishing body), Balya (developing bodily strength), and Vrushya (increasing fertility) are effective techniques for improving sexual wellbeing.

In Bharat Bhaishajya Ratnakar, Ashwagandha Ghrita is mentioned which acts as Vrushya when given to males for 3 months.

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NEED OF STUDY –

Male and female participants perceived that fertility is a women's health issue and women are blamed. It is a difficult topic for men to discuss. However, male fertility issues have been alarming over a period of years. Men should be motivated to participate in fertility research to support their partners, provide data that could help others, and to learn more about their own reproductive health. Also there are no promising treatment option available for male partner with deranged sperm parameters. Most of time in such cases the modern obstetricians offer Artificial Reproductive Technology, in which the female partner is subjected to invasive stressful and expensive ART procedures without consideration of alternative solutions to manage the couple's infertility. Therfore, there is a need to study on this topic.

PREVALENCE –

The prevalence rate of oligoasthenozoospermia is 16.7%.

RESEARCH QUESTION –

Does Ashwagandha Ghrita have any effect in the management of Male Infertility with special reference to oligoasthenozoospermia ?

HYPOTHESIS –

NULL HYPOTHESIS –

There is no significant effect of Ashwagandha Ghrita in the management of Male Infertility with special reference to oligoasthenozoospermia.

ALTERNATE HYPOTHESIS –

There is significant effect of Ashwagandha Ghrita in the management of Male Infertility with special reference to oligoasthenozoospermia.

AIM –

To study the effect of AshwagandhaGhrita in management of Male Infertility with special reference to oligoasthenozoospermia.

OBJECTIVE -

To assess the effect of AshwagandhaGhrita in management of Male Infertility with special reference to oligoasthenozoospermia.

Study Design –

Single Case Experimental Clinical Trial

Study Centre –
Prasuti Tantra Stree Rog OPD at YMT Ayurved Medical College, Kharghar, Navi Mumbai.

Sampling –
Single Case Study

Operational Definitions –
Infertility –
It is defined as a failure to conceive within one or more years of regular unprotected coitus.

Primary Infertility -
It denotes those patients who have never conceived.

Oligoasthenozoospermia –
It is a combination of – *Asthenozoospermia means reduced sperm motility and Oligozoospermia means low spermatozoon count*.

CASE –
A 32 yr old male patient came to PrasutiTantraStreeRog OPD on 23/08/2022 with

C/O - willing for child since 4 years

The Female partner was thoroughly checked with all examinations & investigations, but all reports were normal. The male partner was examined & investigations were done & he was diagnosed with Oligoasthenozoospermia.

Case Paper Of Male Patient -

Occupation	**Banker**	
Family History	NIL	
Sexual History		
Coital History	Twice a week	
Erection	Good	
Personal History		
Exposure to Heat	No	
Cigarette Smoking	No	
Alcohol Consumption	No	
Tobacco Chewing	No	
Tight Clothing	No	
H/O Trauma	No	
Diet	Mixed, Mild spicy	
Bowel	Normal	
Bladder	Normal	
Sleep	Disturbed	
Appetite	Adequate	
General Physical Examination		
Height	6'3"	
Weight	76 kg	
Temperature	98 F	
Pulse	80/min	
BP	120/70 mm Hg	
RS	AEBE, Clear	
CVS	S1S2 N	
CNS	Conscious, Oriented	
P/A	Soft	
Uro-Genital Examination		
Penis	Normal in size	
Prepuce	Normally Retracted	
Scrotum	Normal	
	RIGHT	LEFT
Testis Size	3.4cmx2.5cmx2cm	3cmx2cmx1.5cm
Testis Consistency	Rubbery	Rubbery
Epididymis	Felt smooth	Felt smooth
Vas Defferentia	Soft	Soft
Varicocele	No	No
Inguinal Examination	No any scar	No any scar
Rectal Examination	Normal	Normal

Pathological Investigations –
Semen Analysis – Before and After treatment

MATERIAL AND METHODS-
Material -
Drug Review –

SR NO	**DRUG**	**RASA**	**GUNA**	**VIRYA**	**VIPAKA**	**DOSHGHNATA**	**KARMA**
1.	Ashwagandha	Tikta, Katu, Madhura	Laghu, Snigdha	Ushna	Madhura	Vatakaphaghna	Balya, Rasayana, Bruhana, Vajikaran
2.	Go Ghrita	Madhura	Guru, Snigdha	Sheeta	Madhura	Vatapittahara	Rasayan, ViryaVruddhi

METHODS –

SR NO.	**CONTENT**	**LATIN NAME**	**PARTS USED**
1.	Ashwagandha	Withaniasomnifera	Moola

Preparation Of Drug -
AshwagandhaGhrita was taken from the pharmacy of YMT Ayurvedic Hospital. The Ghrita was prepared according to the procedure mentioned in Sharandhara Samhita Madhyam Khand Sneha Kalpana.

Dose Of Drug –
Ashwagandha Ghrita 20 ml twice a day after food daily for 3 months.

Mode Of Administration -
Orally.

Informed Consent –
The patient was given study information, verbal and written, in her vernacular/understandable language about the purpose and nature of the study and anInformed written consent was taken. C.R.F (Case Record Form) was prepared for this study.

RESULTS-

DATE	**COMPLAINS**	**TREATMENT**	**DURATION**
30/08/2022	Anxious for child, Daurbalya, disturbed sleep	Ashwagandha Ghrita – 10ml BD	1 month
27/09/2022	Anxious for child	Ashwagandha Ghrita – 10ml BD	1 month
01/11/2022	Anxious for child	Ashwagandha Ghrita – 10ml BD	1 month

		BEFORE TREATMENT	**AFTER TREATMENT**
Duration of Abstinence		3 days	3 days
Volume		2.5 ml	3 ml
Color		Opaque white	Opaque white
Fructose		Positive	Positive
Viscosity		Normal	Normal
Ph		7.2	7.5
Liquefaction Time		25 mins	30 mins
Sperm Count		15 mill/ml	45 mill/ml
Motility	Highly Motile	-	60%
	Sluggishly Motile	20%	10%
	Non Motile	80%	30%
Total no of Abnormal Spermatozoa		60%	40%
Pus Cells		6-7/hpf	1-2/hpf

DISCUSSION -
Drava, Snigdha, Madhura, Saumya, and Jalamahabhut pradhanatva are the properties of Shukra Dhatu. Conception is impossible if Shukra doesnt possesses any of these qualities and has dushti. Thus, pathogeny in oligoasthenozoospermia entails reduced motility and poor sperm count, which are

caused by vitiated pitta and elevated Chala Guna. Agneya property in vitiated Pitta eventually interferes with Shukra's saumyaguna, resulting in a decreased sperm count. Additionally, enhanced Chala and Ruksha properties in vitiated Vata have an impact on motility.

Probable Mode Of Action -

Ashwagandha is Tikta, Katu, Madhura rasa with Laghu, Snigdha Guna and Madhura Vipaka causing VataKaphashamana.It has Balya, Rasayan, Bruhan, Vajikaran Karma. Ghrita has Madhura Rasa, Guru, Snigdha Gunas and Madhura Vipaka causing Vatapittashaman. It has Rasayan Karma.So, Ashwagandha Ghrita overall causes Tridoshshaman. It has very good results in sexual disorder and it acts as a rejuvenator. It improves energy and also memory by enhancing the brain and nervous function, shows anxiolytic effects. Ashwagandha act on Neuro- Endocrine Immune System & reduce stress.

The chemical constituents of Ashwagandha - Withaniasomnifera (WS) are alkaloids (isopelletierine, anaferine, cuseohygrine, anahygrine, etc.), steroidal lactones (withanolides, withaferins) and saponins.
Withaferin A, a constituent seen in Ashwagandha reduces oxidative stress in Infertility patients.

CONCLUSION -

The seventh dhatu of human body is Shukra. It is in charge of giving the body strength, stability, vitality. So if there is Dushti in ShukraDhatu, the properties of shukradhatu would decrease thereby leading to decrease in sperm count & motility. So here we applied the Ayurvedic Principles of detoxification, rejuvenation, increasing vitality, strength by acting on the affected Doshas & Dhatus. From the above case study we can conclude that, Ashwagandha Ghrita had a significant effect on the spermatogenesis thereby showing good result on Oligoasthenozoospermia.

With 3 months of regular treatment with Ashwagandha Ghrita Orally, there was significant increase seen in the sperm count to 45 mill/ml & motility showing highly motile sperms increased to 60%.

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