WORLD JOURNAL OF PHARMACEUTICAL RESEARCH

SJIF Impact Factor 8.084

Volume 10, Issue 5, 396-404.

Review Article

ISSN 2277-7105

HERBAL, MINERAL AND HERBOMINERAL FORMULATIONS FOR TREATING MALE INFERTILITY

Vijavalakshmi R.*¹, Elavarasi A.², Arunkumar G.², Kavitha V.³ and Thangadurai K.⁴

¹UG Scholar, JSA Medical College for Siddha & Research Centre, Ulundurpet, 606107.

²Lecturer, JSA Medical College for Siddha & Research Centre, Ulundurpet, 606107.

³Vice-Principal, JSA Medical College for Siddha & Research Centre, Ulundurpet, 606107.

⁴Principal, JSA Medical College for Siddha & Research Centre, Ulundurpet, 606107.

Article Received on 27 Feb. 2021,

Revised on 20 March 2021, Accepted on 10 April 2021

DOI: 10.20959/wjpr20215-20277

*Corresponding Author Vijayalakshmi R.

UG Scholar, JSA Medical College for Siddha & Research Centre,

Ulundurpet, 606107.

ABSTRACT

The term *Maladu* is used for infertility in Siddha Medicine. Infertility is defined as not being able to get pregnant after a year even unprotected sex. Infertility is the most frustrating symptom of couples. Infertility affects an estimated 15% of couples globally, amounting to 48.5 million couples. Siddha system is traditional system for healing various diseases. It is based on combination of ancient medicinal practices and spiritual disciplines. Siddha system accounted for total 4448 diseases, infertility is one among them. Siddha medicine plays a successive treatment for infertility. According to Siddha materia medica large numbers of herbs mentioned to treat infertility condition. Siddha knowledge of treatment of infertility may be beneficial to

researchers who are interested in gynaecological problems.

KEYWORDS: Male Infertility, Aan Maladu, herbals, Siddha formulations.

INTRODUCTION

Most people will have the strong desire to conceive a child at some point during their lifetime. Hence, infertility is a significant, social and medical problems affecting couples worldwide. It is "a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse". In the modern lifestyle, the increase could be due to at least four factors: delayed childbearing, alterations in semen quality due to habits such as cigarette smoking, alcohol, etc., Siddha medicine, which is also known as 'SIDDHA VAIDYA' has many therapeutic value in curing and treating of infertility. Here are some herbal and herbomineral formulations that are advised by the Siddhars in the form of kashayam, chooranam, lehgyam, thailam, gulligai, chendhuram, parpam, etc., In Siddha system, Panchabootham plays a vital role. The five elements of Panchabootha's are Earth, Water, Fire, Air, and Space. Any imbalance in the ratio of these elements may cause disease. In case of infertility, the inclusion of air and fire in the uterus causes woman to be sterile. Infertility can be prevented by increasing adherence to a 'fertility diet' pattern.

Infertility may occur, if there are any problems with any of these steps.

CAUSES OF MALE INFERTILITY

Major factors causing infertility in males include:

- Disorders of spermatogenesis
- Obstruction of the efferent ducts
- Disorders of sperm motility
- Sexual dysfunction

ETIOLOGICAL CLASSIFICATION

1. Disorders of spermatogenesis

A. Hormonal

- Hypothalamic disorder
- Pituitary secretion of FSH and LH
- > Hyperprolactineamia
- > Hypothyroidism, adrenal gland disorder, diabetes.

B. Primary testicular disorders

- ➤ Idiopathic, varicocele
- > Chromosomal defect, i.e. Klinefelter syndrome
- Cryptorchism
- Drugs, radiation
- Orchitis (traumatic, mumps, TB, gonorrhoea)
- > Chronic illness
- Immunological disorders
- Immotility due to absence of dynein arms.

2. Duct obstruction

- > Congenital absence
- ➤ Inflammatory block (gonococcal, tubercular)
- Surgical trauma
- Young's syndrome (inspissated mucus) associated with sinusitis and bronchiectasis.

3. Accessory gland disorders

- Prostatitis
- Vesiculitis
- Congenital absence of vas in cystic fibrosis.

4. Disorders of sperms and vesicular fluid

- > Sperm acrosome defect
- Zona pellucida binding defect
- > Zona penetration defect
- Oocyte fusion defect

5. Sexual dysfunctions

- ➤ Low frequency coitus --- wrong time
- > Impotence, hypospadias
- > Premature ejaculation
- > Retrograde ejaculation

6. Psychological factors and environmental factors

- Smoking
- ➤ Alcohol consumption
- > Tobacco chewing
- Diabetes
- ➤ Drugs --- antihypertensive, antipsychotics, sex steroids chemotherapy, beta-blockers, spironolactone, oestrogen.

Characters of Semen In Aan Maladu

Paarkavey aanmaganin vindhu thaanum

Padhamaana thithippu illadhadhaalum

Errkavey salameethil midhandhaalum

Yelilaga uyirpattru irrupadhaalum

Serkavey moothirathil nuraithaan pozhum

Seiyalana karuvadhuvum tharika mattaa

Theerkavey yugimuni sikicha saaram

Thelivaaga paadi vaithaar thirami thaaney.

-Yugimuni^[4]

Signs of semen characters as described by the ancient saint *Yugimuni* are devoid of sweetness (absence of fructose), floating on water (decreased semen specific gravity), absence of live sperms (absence of vitality), foamy urine (presence of sperm in urine as froth).

ETIOLOGY OF AAN MALADU

Genetic Cause

Vali - Thathu nashtam (oligozoospermia)

Pitham – Arpa sukilam (oligozoospermia)

Iyyam– Indhiriya kuraivu (oligozoospermia)

Infections

Varaiyaana karpathil malattu puzhu puzhukil

Viraiyana Sukkilam tharaindhathu undilum

Karai maladaaval kaanithu pookinaal

Thuraiyaana pillaidhaan sugamaana sennikkumae

Thirumoolar^[3]

As per the *Thirumoolar* says, the sperm is eaten up by the malatu puzhu (may be Anti-sperm antibodies) present in the cervical mucosal lining of the uterus.

Karumpanisai Ammai (Measles)

Arindhapin ivargaulda gunandhaanapa

Andhandha sareerathir kadutha vaarai

Therindhathodu gunakurigal thonrumappa

Thiramana karumpanisai vindhai kollum

Parindhathoru karpathai azhiya pannum

Panpaaga kayarvagalukkum pillai illai

Murindhathoru ivargaluda pillai illai

Muraimaiyudan marundhuvagai sollakkelae

Agasthiyar Vaisoori Nool^[2]

The complications of the karumpanisai ammai are irandha Vinthu anukal (Necrospermia), karpam allium (Habitual abortion),

This type of Ammai Noi causes sterility in both men and women. This produces viral epidymo-orchitis in men. This can cause disturbances in spermatogenesis activity.

Testicular Cause

Vithai Vatham (Orchitis)

Beeja Thamba Vatham / Neerandam (Hydrocele)

Unmaiya iranduvirai thaanum veengi

Uyargindra punpol valithu nondhu

Thanmaiyaai salaagaiyathu yetrinaar pal

Thaakkaana peesamengum valithu nondhu

Venmaiyaai neeraruvi thuliyaai veezhum

Vinmumae adikadikku thandu thaanum

Penmaiyaai manamadhudhan pithal kaanum

Peesamaan thambamenrae pesa laamae

Yugimuni^[2]

The clinical features are vidhai veekam (Scrotal swelling), pricking pain, scanty micturition, aan kuri vimmudhal (Bulged male genital).

> Asuva vatham(Crypto-orchidism)

Sethiyaai sirukuthirai paaichalaagi

Segamella migakulukki koti panni

Methiyaai meleri keezhae nokki

Verikondaar polmirandu andam veengi

Yethiyaa iranduvirai ullae pukki

Inaiyilinga mutsurungi izhindhu novaam

Aadhiya madivayiru isivu kaanum

Maniyasuva vathamenrae ariyalaamae.

-Yugimuni^[2]

The clinical features are undescended testis, aan kuri surungal, lower abdominal pain.

Traumatic Cause

Seivadhey kallidaikkaala kondalaal virai irandum

Thuiyavey thalaarasiundaam viraithaan kaanaathagum

Uiyavey moochadaikum occhum kureinthu pogum

Meiyavey kaiyaagathal meyvinil vagaiethamey.

varma laada soothiram $300^{[12]}$

Both testes cannot be felt in scrotalsac (Testicular atrophy), scanty micturition, abdominal distension.

Traumatic injuries in the Lumbosacral Nerve Plexus. (Pudental nerve) can cause impotence, leads to infertility.

Internal Medicines In Siddha For Infertility Formulations in Siddha treatment [11][12][14][15]

S.NO	Name of the formulation	Dosage	Adjuvant	Indications	
1.	Aarudhaa chooranam	3 g BD	-	Inthriya nashtam (Spermatorrhoea)	
2.	Sandhiragandhi chooranam	12 g OD	Milk/honey/raw rice water/ gooseberry juice	Inthriya nashtam (Spermatorrhoea)	
3.	Kathalikani lehgyam	8 g BD/ 10-15 days	-	Thathu balapadum (Strengthening semen)	
4.	Vajjirrakandi lehgyam	0.798 g BD	-	Bogam undakum (Libido)	
5.	Mahapoornathi lehgyam	0.798 g BD / 48 days	-	Vinthu irrugum (Thickening of semen)	
6.	Vennpoosani lehgyam	8 g	-	Vinthu oorum (Increase of semen)	
7.	Saambirani kuligai	50 mg	-	Thathu viruthi (Increase of secretion of semen)	
8.	Poorana sandhirodhya maathirai	0.0632 g	Butter/ jaggery powder/ ginger juice	Inthriya nashtam (Spermatorrhoea)	
9.	Meganaadhi ennai	10 ml BD	-	Maladu (Infertility)	
10.	Kalnaar parpam	130 mg	Ghee/ butter	Vinthu oorum (Increase of semen)	
11.	Phutparaaga paarpam	-	Honey	Veeriya viruthi (Increase of secretion of semen)	
12.	Singhi chendhuram	130 mg BD	Honey / ghee	Thathu vazhukum (Produce Fertile sperms)	
13.	Naaga chendhuram	488 mg + TKC	Ghee/ honey/ milk	Vinthu nashtam (Spermatorrhoea)	
14.	Thanga chendhuram	65 mg BD/ 40 days	Butter/ ghee	Thathu viruthi (Increase of secretion of semen)	
15.	Ullogha	976 mg+	Honey	Vinthu oorum (Increase of	

	mandoora chendhuram	TKC		semen)	
16.	Thanga urram	130 – 260 mg	-	Janana uruppu noigal (Reproductive disorders), veeriyam undakum (Aphrodisiac), vinthu nashtam (Spermatorrhoea)	
17.	Velli uuram	65 – 130 mg	Jathikaai lehgyam	Thathu viruthi (Increase of secretion of semen)	
18.	Nandi mezhugu	500 mg BD/ 48 days	Palm jaggery	Sukkila noigal (Sperm disorders), suronidha noigal (Ovulation disorders)	
19.	Appalakaaram Podi	3 days (from onset of mensus)	Half lemon pressed in this powder	Maladu (Infertility)	
20.	Khomuthira Silasathu	130 mg OD/ 3 days	Yellow yolk of the egg	Aanmai undakum (Aphrodisiac)	

The drugs of the following **MOOLIGAI** were selected for treating infertility. These were given in the form of chooranam, lehgyam, kashayam, etc.^{[16][17]}

S.No	Common Name	Botanical Name	Preparation	Dosage	Indications
1.	Amukkura	Withania	Chooranam –	2–4 g OD	Vinthu perugum
	kizhangu	somnifera	Tuber	with Ghee	(Increase of semen)
2.	Ammanpacharisi	Euphorbia pilurifera	Chooranam	8.5 g OD with Milk	Venneer perukum (Increases semen)
3.	Erukku	Calotropis gigantean	Mathirai	50 mg	Veriyam undakum (Aphrodisiac)
4.	Kasa-kasa	Papver somniferum	Lehgyam	4–8 g	Aanmai perukum (Aphrodisiac)
5.	Karanthai	Ocimum basilicum	Chooranam – Leaves	4–8 g with Butter	Aanmai perukum (Aphrodisiac)
6.	Karungali	Acacia catechu	Gums (Pesin)	1–2 g with Water	Vinthu valarum
7.	Kalyana Murukku	Erythrina variegata	Juice – Leaves	60 ml BD for 2–3 months	Maladu (Infertility)
8.	Seendil	Tinospora cordifolia	Lehgyam		Vinthu oorum (Increase of semen)
9.	Kattu Chirakam	Vernonia anthelmintica	Thailam	With Beetle leaves	Aanmai perukum (Aphrodisiac)
10.	Thazhai	Pandanus odoratissimus	Karkam – Vizhudhu		Maladu (Infertility)
11.	Thippili	Piper longum	Chooranam	1–1.5 g OD with Ghee	Aanmai perukum (Aphrodisiac)
12.	Thuththi	Abutilon	Chooranam –	With Sugar	Aanmai perukum
		indicum	Flower	& Milk	(Aphrodisiac)
13.	Thettran	Strychnos potatorum	Lehiyam	6.022 g BD for 20 days	Aanmai perukum (Aphrodisiac)

				with Naaga	
				parpam	
14.	Naga mali	Rhinacanthus	Root boiled		Aanmai perukam
		nasuta	with Milk		(Aphrodisiac)
15.	Nirmulli	Hyanophila	Milk soaked	A	A annuai namulzam
		Hygrophila auriculata	seeds with		Aanmai perukam
			sugar		(Aphrodisiac)
16.	Chemparuththi	Gossypium	Kudineer –	4.2 g for 40	Aanmai tharum
		arboreum	Bark	days	(Aphrodisiac)
17.	Madhanakama	Cycas	Chooranam –	BD	Aanmai perukum
	poo	circinalis	Flower		(Aphrodisiac)
18.	Vengayam	Allium cepa	Chooranam –	3–4 g BD	Aanmai undakum
			Seed		(Aphrodisiac)

CONCLUSION

Hence the review provides the detailed information about the male infertility and the Siddha medicines prepared from herbal, mineral and herbomineral formulations for treating it.

REFERENCES

- 1. Dr.Shanmugavelu. M. Noi Naadal Noi Muthal Naadal thirattu (Part I). Chennai: Directorate of Indian medicine and Homeopathy, 1967, 1st edition.
- 2. Dr.Shanmugavelu. M. Noi Naadal Noi Muthal Naadal thirattu (Part II). Chsennai: Directorate of Indian medicine and Homeopathy, 1967, 1st edition.
- 3. Dr.Arangasaaran S. Karpa vaagata thirattu, Thanjavur: Saraswathi pathippagam, 2018, 2nd edition.
- 4. Venugopal P.M. Magalir maruthuvam. Tamil Nadu: Directorate of Indian medicine and Homeopathy, 1995, 3rd edition.
- 5. Uththamarayan K.S. Siddha maruththuvanga surukkam. Chennai: Directorate of Indian medicine and Homeopathy, 2006, 2nd edition.
- 6. Sambasivampillai T.V. Siddha Medical dictionary (Part I-V). Chennai: Department of Indian medicine and Homeopathy, 2011, 3rd edition.
- 7. Thurairasan K. Noi illa neri. Chennai: Directorate of Indian medicine and Homeopathy, 1993, 1st edition.
- 8. Kannusamy Pillai S, Kannusamyam ennum vaithiya sekaram, Chennai: Ganesh pathippagam.
- 9. Vaithiya Sindhamani -Sikicha Rathina theepam (Part II).
- 10. Varma laada Soothiram 300.

- 11. Kuppusamy K.N, Uthamarayan K.S. Siddha vaithiya thirattu. Chennai: Department of Indian medicine and Homeopathy, 2009, 3rd edition.
- 12. Thiyagarajan R. Gunapaadam Thathu seeva vaguppu, Chennai: Department of Indian medicine and Homeopathy, 1981, 3rd edition
- 13. Murugesa Muthaliyar K.S. Gunapaadam Mooligai vaguppu (Part I), 2018, 3rd edition.
- 14. Murugesa Muthaliyar K.S. Gunapaadam Mooligai vaguppu (Part II), 2018, 3rd edition.
- 15. Thiyagarajan R. Gunapadam thathu seeva vaguppu, Chennai; Department of Indian medecine & homeopathy.
- 16. Murugeda muthaliyar K.S. Gunapadam mooligai vaguppu, (part1) 2018, 3rd edition.
- 17. Murugesa mudaliyar K.S Gunapadam mooligai vaguppu (partl ll), 2018 3rd edition.