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**A Review on the Male Anti Sterility Herbs in Practice among the Rural and Tribal
Communities of Western Ghats for a Potent Drug Discovery.**

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ABSTRACT

In the present days male sterility is common due to deficiencies in the semen count, structure and quantity. There are many causes for it, including childhood infections, hormonal disorders, genetic factors and physical abnormalities. Men who smoke and drink alcohol have 13-17% lesser sperm count than teetotalers. Because of the afore said reasons the number of infertile male steeply increases in the present days. Presently many synthetic drugs are available in therapeutic practice to treat male infertility. Most of the synthetic drugs produce innumerable side effects. Hence, it is the need of the hour to search for a potent medicinal plant. Male infertility is prevalent among the urban zone whereas it is considerably less among the rural and tribal population because of their food habits, life style and tribal medical practice. Many works has been attributed regarding the herbal treatment of male sterility using safe native methods of treatment. This review compile all the herbs reported to cure male infertility both in India and Abroad and also will reveal much information regarding the rural and tribal therapeutic procedures in the treatment of male impotency. Hence this type of review will form a base for the further researchers to screen the pharmacology and toxicology screening to obtain scientific authentication to bring out a potent safe and economically viable drug for male infertility.

Keywords: anti-sterility, herbs, western ghats, sterility

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INTRODUCTION

Male sterility has become a major problem among the present day youngsters due to many reasons such as hormonal, physiological and psychological problems can cause male infertility.[1-3} Male infertility also caused by testicular damage resulting in an inability of the testicle to produce sperm. Apart from afore said reasons it is also caused due to Smoking, Oliving style, Prolonged use of recreational drugs, environmental pollutants, chronic alcohol abuse, use of steroid intense exercise cause a testosterone deficiency resulting in infertility. Male infertility is diagnosed mainly by semen count and blood test ,in the sperm analysis sperm count is diagnosed as decreased number of spermatozoa in semen referred as oligozoospermia, complete lack of semen as Aspermia , reduced seminal volume as Hypospermia, absence of sperm cells in semen Azoospermia reduced sperm motility [4,5]. Infertility causes serious psychological problems such as anxiety, depression, social isolation, sexual dysfunction and feeling unworthiness. In recent days food habits living style and environment had serious influence on the psycho and physiological problems leading to the steep increase of infertility in India. WHO [6, 7] and other national health authorities have already initiated alarming the general public about this issue through statistical representation. Hence it is a burning issue to be given prior attention to find out a safe herbal remedy as an alternative for the existing synthetic drugs which causes serious side effects [8] The Review is initiated to explore the statistical data published by journals and newspapers to create an awareness among the people about the seriousness of male infertility.

Statistics of Male Infertility in India and Other Countries

Health wise, the country is doing no better. As if rising rate of public health challenges such as diabetes, hypertension (high blood pressure) and heart disease were not enough, statistics reveal more and more couples in India are finding it difficult to procreate. Today, infertility is no longer recognized as only a female problem. Today, around 15 per cent of the Indian population, both male and female, are infertile. Though in general the percentage of male infertility is on the rise, it cannot be avoided that both men and women in cities are prone to infertility due to their working style according to Dr Geetha Haripriya, obstetrician and gynecologist in Chennai. [Challenges in Infertility Management (CIIM) 2014]. According to statistics, the percentage of male infertility has raised to 60 per cent now against 40 per cent in 1980s. Studies say that the prolonged usage of pesticides would have increased male infertility in the agricultural sector. Study reports suggested that male infertility is almost as high as female infertility. One in every five healthy young men between the age from 18 to 25 suffer from abnormal sperm count. In every 100 couples, 40 percent of the males suffer from infertility compared to 50 percent women. In the remaining 5 percent, the causes are common to both men and women. According to Infertility expert and Vice-President of the Indian Society of Assisted Reproduction, Dr Hrishikesh Pai, has revealed that the problem of male infertility is on the rise in the country and he roughly estimates that 30 million couples in the country suffer from infertility, making the incidence rate of infertile couples at 10 per cent. [9]

Present Therapeutic Procedures for Male Sterility in Practice

Male infertility due to testicular problem is difficult to solve through therapeutic solution hence medical authorities suggest for intrauterine insemination,, in vitro fertilization whereas obstructive causes of post-testicular infertility can be overcome with either surgery or ejaculatory factors may be treatable by medication[10]. Vitamin E administration solves problems like oxidative stress, sperm DNA damage and reduced sperm motility. Hence in the present day allow dose testosterone hormone-antioxidant combination improve sperm count, motility and severe oligospermia [11].

Harmful Effect of Existing Synthetic Drugs in Practice

Existing medicines show serious side effects instead of curing the disease. Synthetic testosterone can enlarge the prostates of elderly men and is not recommended for those suffering from or prone to prostate cancer. Patients with liver disease, coronary disease, chest pain, high cholesterol or diabetics show serious complication after therapeutic dosage of testosterone. Long-term use of exogenous testosterone can result in hepatitis (the development of blood-filled cysts inside the liver and/or kidneys) results in death. Additionally, some oral forms of synthetic testosterone are designed to make it difficult for the liver to break them down via a process of 17-alpha-alkylation (attachment of an alkyl group) to achieve this effect, which has been known to cause liver toxicity. Testosterone can cause changes in liver levels, and can also cause excess sodium and water retention, which puts additional strain on the liver and kidneys. Men who take exogenous (non-bodily produced) testosterone over long periods can depress the body's natural production of testosterone, and when treatment is stopped, they may need to restart the body's natural production by the use of human chorionic gonadotropin (a natural precursor to testosterone [12]). Hence it is necessary to find out a natural remedy to solve the aforesaid problem through tribal source of information.

Tribal Medical Practice

Male infertility is not commonly seen among the tribal communities because there are many herbs in practice among the tribal folk for male infertility problems. Since it lacks scientific authentication it is kept secret among the tribal communities Apart from this medical authorities doesn't encourages the tribal medicine predicting its toxicity .Hence it is need of the hour to explore the reported plants for its further scientific authentication to bring out a safe drug for male infertility problem. There are many plants used by different tribes to treat the symptoms of male sterility. Entire list of plants used for male infertility by tribal communities like Baduga, Thoda, Kurumba and Kattu Naicken of Western Ghats have been enlisted below [13-16].

Name of the Herb	Tribe	Therapeutic property
Ashwagandharishta	Kurumba and Irula	Sexual stimulant and sex drive.
Brahmi	Kattu Naicken,panniya and Kurumba	Usefulfor male infertility problems.
Crocus sativus/ Saffron	Kurumba Parumkurumba	Effective in increasing sperm and sperm count.
Garlic	Todas	Herbal impotence tonic in men
Sarasparilla	Todas	Increase testosterone and erection in men naturally,
Cardamom	Badaga	Sexual stimulant cures impotence.
Pumpkin seeds	Alu Kurumba	Male sexual tonic
sesame seeds	Irula	Enhances sexual vigor in male.
Damiana	<i>Kurumba</i>	Improves sexual desire and maintain erection.
Mucuna pruriens	Mullu <i>Kurumba</i>	Mucuna's extract increases sperm metabolism.
Moringa oleifera	Irulas and Paniyas Mullu kurumba	Improve erectile dysfunction and semen quality.
Terminalia catappa[Almond]	Kattunayakas	Used to cure Male Sexual Dysfunction
<i>Ocimum Sanctum</i>	Paniya kattu naickens	Increase in serum testosterone level
Asparagus Adscendens	Kattu naicken,irular kurumbar	Increases sperm production
Oxalis corniculata L.	Kurumba	Effective herb for male anti-fertility.
Ricinus Communis L.	Kattu naicken	Treat fertility problem in male and female

CONCLUSION

In the present generation especially among the urban community we see a steep increase in the male infertile cases due to change in the living style, occupation, pollution and lack of contentment in life. There are many clinics have come sa mushroom by propaganda that they are going to completely cure the impotent patients but to our surprise still it increases in many folds because the present synthetic drugs gives temporary relief with innumerable side effects. Hence while we screen the tribal medical practice it is evident from the review that there is numerable number of herbs available for treating male infertility. Most of the plants are nonpoisonous which can be consumed without any hindrance. But still Drug control authorities demand for scientific authentication through pharma-cognistic, pharmacological and toxicological studies to declare it as a safe drug for clinical trial .This type of review help the further researchers to screen the scientific study to bring out a potent drug discovery.

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