

A Review on the Herbs in Practice among the Tribal Communities of Nilagiri District for Gynecological Problem.

Jeyalakshmi.G, Nithyananthi.M, Jayashree.R, Yuvaraj .D, *Sekar Babu Hariram

Department of Biotechnology, Veltech Hightech Dr Rangarajan Dr.Sakunthal Engineering College, Avadi, Chennai.62.

Available Online: 1st September 2014

ABSTRACT

Female infertility problems are common among the urban population when compare to rural and tribal population. Many works have been attributed to investigate the female infertility problems but very little scientific work has been done to explore the efficacy of natural remedies to correct the gynecological problems in women. From the earlier literature it is evident that the living style, society, occupation, insecurity, nutrition and environment factors are the few reasons for increased number of female infertility among the urban zone. It is also evident only few causes can be corrected whereas remaining causes cannot be eradicated in the preset polluted world. Hence many pharmaceutical companies started marketing therapeutics such as hormone therapy, nutritional supplements and other drugs at very high rates. There are innumerable reports available regarding the side effects of the synthetic drugs in practice to correct gynecological problems. Although there are many reports available regarding the ayurveda and siddha therapy but very little work has been done regarding the tribal treasure of therapeutics for gynecological problem. Since the available information lack of scientific authentication it is remained unexplored. Hence the present review has been done to bring out the potent herbs in practice among the various tribal communities of Nilagiri district. This review form a base for the further researchers to explore the potency of rare tribal herbs through scientific authentication to bring out a safe drug for gynecological problems.

Key words: menstrual, menopause, uterine, estrogen, kurumba.

INTRODUCTION

Infertility is a failure to achieve pregnancy recent information indicates that around 30% of the cases, the female has infertility problems when compare to total infertility (Hull et al). In case of women, Irregular menstrual cycles, pelvic inflammatory diseases, underweight, obesity, smoking, addiction to alcohol are also the causative factors of Infertility. Many women may be infertile during their reproductive years but be completely unaware of this. Factors such as age, lifestyle and physical condition contribute considerably to fertility problems. Female Infertility mainly caused due to hormonal changes lead to irregular, no menstrual periods, polycystic ovarian syndrome (PCOS), endometriosis and pelvic inflammatory disease, hypothyroidism and Iron deficiency also likely to create ovulatory dysfunction in women. Maintaining a healthy body weight is vital for fertility. Being overweight or obese combined with a lack of exercise leads to excessive fat deposition which may cause ovulation problems, resulting in infertility. A low body weight and chronic dieting are also associated with amenorrhea or loss of menstrual cycles, making it difficult for ovulation to occur (Michelle P. Warren). A balanced diet of low-fat foods packed with healthy nutrients helps to regulate hormones and nourish your reproductive system. Avoid large quantities of sugary

foods and caffeine as they have been associated with infertility. There are many therapeutic procedures available to correct female infertility problem through synthetic drugs. These drugs apart from giving temporary relief it causes irreparable health complications. Ayurveda and siddha medical practice indicate many drugs for correcting female infertility problem but tribal source of information remain unexplored hence the present review is aimed to explore tribal source of information to correct the female infertility problem through safe herbs inhabited around nilagiri district. Tribal communities of Nilagiri District: Nilagiri District has excellent Biodiversity of flora and fauna due to its favourable weather condition and sufficient rain fall through south west and north east monsoon. It is one of the hill stations of India provide home to about ten different primitive tribal communities with distinct culture. Based on their geographical isolation, the tribal community can be divided into Todas, Kotas, Irula, Kurumba and Paniyas. These tribal communities reside in various ecological and geoclimatic conditions ranging from plains, forests and grass land to inaccessible area. These communities exchange their food crops, utensils food preparation methods among them. All the tribes have strong cultural bonding through which they pass on information relating to hunting, food

S.No	Name of the plant	Tribe name	Uses
1	Ficus Bengalensis (M Ayyanar & S Ignacimuthu)	Kurumba gowder ,irular	cures vaginal disorders,contains fertility – enhancing properties used as a uterine tonic
2	Vitex agnus-castus	Paniyan,Kurumba ,irular	regulates hormonal balance corrects irregular menses, menopause and infertility problems..
3	Asparagus racemosa (Komal Sharma and Maheep Bhatnagar)	Toda,kurumba,kota, ,irular	Fertility promoter increase breast milk production
4	<i>Aloe barbadensis</i> (Radha Maharjan et al)	Badaga,irula,kurumba	tonic after pregnancy, uterine disorders, menstrual suppressions, women sterility.
5	Saraca Indica (Dinesh Kumar et al)	Kota ,irula	stimulates endometrium .
6	Bryonopsis Laciniosa	irular	promoting fertility. herb for sexual inadequacies.
7	<i>Dolichos biflorus</i> L.	Irula,kota	<i>seed:</i> useful in leucorrhoea, menstrual troubles, bleeding during pregnancy,
8	<i>Cinnamon Bark</i>	kurumba	Cinnamon bark reduces menstrual flow and relieves uterine cramping,correct helps relieve menstrual bleeding and cramping. Cinnamon bark is used as a treatment for uterine disorders, as well as for irregular and painful periods.
9	Red Clover	kurumba	treating menopausal symptoms, menstrual pain
10	Zingiber officinalis	Kota,kurumba,irula,panniyan	Increased circulation to the reproductive organs reduces inflammation of the uterus, ovaries or fallopian tubes.
11	<i>Hibiscus lobatus</i> Murry	. kurumba,irula,panniya	The leaf and root are made into a paste and mixed with gingely oil and is taken orally as a remedy for all types of menstrual disorders
12	<i>Rubia cordifolia</i>	kurumba,kota,,irular,toda	The root extract is given orally to correct menstrual problems.
13	Glycyrrhiza Glabra (Najat A. Hassan et al)	kurumba,kota,,irular,nayadis	It increases cortisol and oestrogen, and decreases testosterone.
14	Withania somnifera	kurumba	fertility enhancer protect thyroid function and allows the thyroid to function more optimally.
15	Coleus forskohlii (Rakshapa et al)	irula	Coleus is generating excitement it also stimulates thyroid hormone and may improve insulin sensitivity.
16	<i>Ficus racemosa</i> L. (Rasingam)	.irula,kurumba	Cures menstrual disorders. .

preparation and medical tips to other communities (Reddy et al).

Female infertility problems in India: Female infertility can be also be caused by a number of factors, including reasons like, Damage to fallopian tubes, Hormonal imbalance, mal nutrition, problems, cervical and uterine problems. Damage to the fallopian tubes can prevent contact between the egg and sperm. Pelvic infections, endometriosis, and pelvic surgeries may lead to scar formation and fallopian tube damage (William R. Keye). Some women have problems with ovulation such as hormonal changes leading to the release of an egg from the ovary and the thickening of the endometrium in preparation for the fertilized egg do not occur. A small group of women may have a cervical condition in which the sperm cannot pass through the cervical canal. Whether due to abnormal mucus production or a prior cervical surgical procedure, this problem may be treated with intrauterine inseminations. Abnormal anatomy of the

uterus and presence of polyps and fibroids in the ovary can also be one of the main reason for female infertility (Tullio Ghi et al) .Reduction in fertility is commonly observed in women aged above 40 years.Staistics of 1981 indicated that one out of five couples is childless and their numbers are growing because 16% of married women are childless in the cities.Hence 17% of childless women face marital problems compared to 2% with children.It is shocking to hear that around 20 to 30% is the growth rate of the infertility sector in India..[India Today july 5th 2010]

Present therapeutic procedures side effects: Hormonal replacement therapy by using estrogen and progesterone, is quite commonly used in correcting female infertility problems related to hormonal imbalance. estrogen is taken as thereapetic dose can have side-effects, including vaginal bleeding, tender breasts, endometrial cancer ,water retention, changes in your mood, feeling sick and headache. This therapy also increases the risk of

developing breast or ovarian cancer and blood clots . There is little scientific evidence for complementary therapies improving symptoms of the menopause. For example, there isn't enough evidence for doctors to recommend taking phytoestrogens, which are naturally occurring oestrogen-like compounds found in plants. In addition, fertility treatments have also been known to increase a woman's chance of having twins, triplets or other multiples. The most common fertility drugs are Clomiphene citrate (Clomid) and Gonadotropin-releasing hormone products which trigger the ovaries to release eggs (Fishel et al). Assisted reproductive technology is a boon for childless couples in the present medical practice such as in vitro fertilization, IVF, zygote intra-fallopian transfer, ZIFT or tubal-embryo transfer, gamete intra-fallopian transfer, GIFT and intra cytoplasmic sperm injection, ICSI.

Potent tribal herbs: There are many herbs are being used to enhance the fertility of women among the tribal communities of Nilagiri District. Red clover is helpful in correcting scar of the fallopian tubes, irregular menstrual cycle, abnormal cells in the reproductive tract and unexplained infertility. Vitex and Ginseng regulates synthesis of sex hormones; helps relieve hormone-related symptoms. Fennel used traditionally to stimulate mothers milk (galactagogue) with some evidence of oestrogenic effects (Antonia Zapantis et al). Whereas Sarsaparilla to purify blood and increase excretion of nitrogenous waste products from the urine because it contains diosgenin, which has no proven hormonal effect in humans. Trials of Remifemin have shown it to be effective in the treatment of many menopausal symptoms, including hot flushes. It can be combined with other herbs to tailor a formula specifically for hot flushes. It is also used for vaginal dryness, aches and pains associated with menopause, and formication (sensation as if ants crawling on skin), although evidence of benefits in these areas is lacking. The combination of Ashwagandha, Brahmi and Jatamansi is also useful to relieve the problems of stress, irritation, anxiety, anger, fatigue and give outside help for both male and female infertility problems. The following are the list of tribal herbs used to correct gynecological problems.

Advantage of natural remedies: Natural remedies started replacing many synthetic drugs because increased literacy level in urban zones has created awareness about its side effects of synthetic drugs. Female reproductive physiology is completely controlled by hormones, living style and nutrition hence any impairment in the factors may result in disease leading to infertility in women. Hence it is need of the hour to screen the potent herbs in practice among the tribal and rural people to correct the infertility problems in women. It is evident that natural drugs are safe and target for a complete cure. These natural remedies are not much explored due to lack of scientific authentication. Different tribes of Nilagiri use their native herbs for treating female infertility problem. .

SCOPE OF THE REVIEW

This type of review will certainly form a base for further researchers to tap the therapeutic potential of unexplored tribal drugs of Nilagiri District. Hence the study can be further extended through in vivo animal studies followed by clinical trials to bring out a potent ,safe economically viable drug through tribal source of information.

ACKNOWLEDGEMENT

Authors express their sincere thanks to Dr.R. Ramesh principal of Veltech Hightech Dr Rangarajan Dr.Sakunthal Engineering College for permitting them to bring out the review successfully.They also extend their thanks to the management for providing necessary facilities.

REFERENCES

1. M.G.RHull, C.M.A.Glazener, N.J.Kelly, D.I.Conway, P.A.Foster, R.A.Hinton,C Coulson, P.A.Lambert, E.M.Watt, K.M.Desai. Population study of causes, treatment, and outcome of infertility. British Medical Journal. VOL 291. 1985
2. Michelle P. Warren. Effects of Undernutrition on Reproductive Function in the Human. Endocrine Reviews. Volume 4 Issue 4 January 1983.
3. K. N. Reddy and K.S.N Reddy. changing bio-ecological aspects of food and nutrition among five tribes of the nilgiris, Tamil Nadu. Anthropologist, 2(3): 169-174. 2000.
4. William R. Keye, Jr., Psychosexual responses to Infertility. Clinical obstetrics & Gynecology. vol 27. issue 3. PPG 760-766. 1984.
5. Tullio Ghi, Paolo Casadio, Marina Kuleva, Anna Myriam Perrone, Luca Savelli, Susanna Giunchi, Maria Cristina Meriggiola, Giampietro Gubbini, Gianluigi Pilu, Carla Pelusi, Giuseppe Pelusi.Accuracy of three-dimensional ultrasound in diagnosis and classification of congenital uterine anomalies. Fertility and Sterility. Volume 92, Issue 2 , Pages 808-813, August 2009
6. S. B. Fishel, R. G. Edwards, J. M. Purdy, P. C. Steptoe, J. Webster, E. Walters, J. Cohen, C. Fehilly, J. Hewitt, G. Rowland. Implantation, abortion, and birth after in vitro fertilization using the natural menstrual cycle or follicular stimulation with clomiphene citrate and human menopausal gonadotropin.Journal of in Vitro Fertilization and Embryo Transfer. 1985, Volume 2, Issue 3, pp 123-131
7. Antonia Zapantis, Jennifer G. Steinberg, and Lea Schilit. Use of Herbals as Galactagogues. Journal of Pharmacy. 2012 vol. 25 no. 2 222-231
8. M Ayyanar & S Ignacimuthu. Plants used for non-medicinal purposes by the tribal people in Kalakad Mundanthurai Tiger Reserve, Southern India. Indian Journal Of Traditional Knowledge. Vol. 9(3), July 2010, pp. 515-518.
9. P.N. Arul Manikandan, M. Jayendran & C. Sebastian Rajasekaran. Study of Plants Used As Anti Diabetic Agents By The Nilgiri Aborigines. Ancient Science

- of Life. Vol : XXV (3&4) January, February, March, April, May, June 2006 Pages101 – 103.
10. Komal Sharma and Maheep Bhatnagar. International Journal of Pharmaceutical & Biological Archives. 2011; 2(3):855-863
 11. L. Rasingam. Ethnobotanical studies on the wild edible plants of Irula tribes of Pillur Valley, Coimbatore district, Tamil Nadu, India. Asian Pacific Journal of Tropical Biomedicine (2012)S1493-S1497.
 12. Rakshapal S, Surendera PG, Deepmala S, Rachana S, Rakesh P, Alok K (2011). Medicinal plant *Coleus forskohlii* Briq. : Disease and management. Med. Plants 3:1-7.
 13. Dinesh Kumar, Z.A. Bhat, P. Singh, M.Y. Shah and S.S. Bhujbal. *Ailanthus excelsa* Roxb. is Really a Plant of Heaven. International Journal of Pharmacology 6 (5): 535-550, 2010
 14. Radha Maharjan, Padamnabhi S. Nagar, and Laxmipriya Nampoothiri. Effect of *Aloe barbadensis* Mill. formulation on Letrozole induced polycystic ovarian syndrome rat model. Journal of Ayurveda and Integrative Medicine. 2010 oct- Dec; 1(4):273-279
 15. Saad S. Al-Dujaily, Najat A.Hassan, Sabah Al. Bilal and Shaymaa Lazim Salman. Malondialdehyde Measurements In Semen After In Vitro Sperm Activation By Pentoxifylline And Glycyrrhiza Glabra Extract. International Journal Of Research In Pharmacy And Chemistry. 2013, 3(4)
 16. S. Rajan*1, M. Jayendran2, M. Sethuraman2 Rajan,2000. A study on the Kattunayaka tribe of Nilgiri Hills, Tamil Nadu Journal of Natural Remedies Vol. 3/1 (2003) 68 - 72)