

An Insight on Polycystic Ovary Syndrome (PCOS) and The Use of Vegetative Medicines as Alternative Treatment

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Abstract- Polycystic ovary syndrome (PCOS) is a hormonal disorder characterised by abnormal production of androgens by the ovaries and affects about 15% of women of reproductive age. Despite this, there is no standard therapy available. When the world is slowly shifting towards herbal medicines, another recent finding is the effectiveness of herbal treatment for the management of PCOS. The study included 150 patients ages 18-44. It's not surprising to find many women taking medications, making lifestyle changes, and embarking on a fitness regime just to keep the condition under control. But, there are home remedies for it too. All you need to do is step inside your kitchen, identify these everyday food ingredients, and add them to your diet. The study found women's menstrual cycle was constructively improved, fasting blood sugar levels didn't change, progesterone levels remained the same at the starting point, and after treatment, free testosterone levels were also dropped significantly. The main success was a drastic improvement in normalising the menstrual cycle during therapy alone. Hence, it can be said that herbal treatment is proven to be clinically effective in most of the patients, particularly PCOS patients with menstrual irregularities.

Keywords: Polycystic ovary syndrome, Herbal, Menstrual irregular, Effective

INTRODUCTION:

1. Polycystic ovarian syndrome (PCOS):

Polycystic ovary syndrome (PCOS) is also known as Stein and Leventhal syndrome. PCOS the most common endocrinological disorder in reproductive-aged women, affecting a significant portion of this population (5-15%). The underlying aetiology of PCOS involves hyperandrogenism (high levels of androgen, like testosterone), and menstrual irregularity. You may be confused by the fact that androgens are male hormones. But androgens are produced in females as well, although in very minute quantities. It is estimated that PCOS affects five million women in the US alone, and it can wreak havoc on your hormones, yet there is still no known definite cure. One of the main reasons for dominant abnormalities is also the release of excessive amounts of GnRH. Instead of being released in a regular cyclic manner, for an unknown reason, it is released at a higher pulse frequency. This increased pulse frequency leads to an increase in LH and FSH. This lower FSH causes the follicle to not mature enough to become functional and can't ovulate. If the follicle doesn't ovulate, a corpus luteum is not created, and without a corpus luteum, there is no surge in progesterone. The lack of progesterone leads to the higher pulse frequency seen in PCOS. Also, excessive LH levels stimulate the thecal cells to produce higher amounts of male sex hormones, androgens, or testosterone. Which leads to other PCOS symptoms like hirsutism, acne, menstrual irregularity due to hormone imbalances, and infertility because there is no ovulation. Insulin also plays a vital role in PCOS. It is released from the pancreas. Insulin can affect the thecal cells of the ovary and cause even more androgen release. The high amounts of androgen cause decreased sensitivity to insulin and insulin resistance. With insulin resistance, more insulin is released from the pancreas, which causes even more androgens. The whole process is one big, vicious cycle. This process is called pre-diabetes and even-diabetes.

2. Symptoms:

Normally, the symptoms of PCOS include irregular periods. In the chronic stages, when there is no treatment, these patients can later have some cardiovascular problems; there can be diabetes; we can present with endometrial cancer; so there is a range of symptoms seen in PCOS symptoms. The most common PCOS symptoms include:

- Irregular periods
- Polycystic ovaries
- Out-of-whack hormones
- Infertility
- Hirsutism
- Thinning hair
- Acne
- Virilism
- Acanthosis nigricans
- Weight changes

However, be assured that early diagnosis and treatment, along with weight loss, may reduce the risk of long-term complications.

3. Causes:

The exact cause is unknown. Contributing factors include:

- Genetic factors
- Excess androgen
- Excess insulin
- Low-grade inflammation
- Obesity

4. Necessity to study PCOS:

According to some sources, in India, 1 in 5 people live with PCOS. That's 20% of our female population. Yet the amount of misinformation and stigma surrounding it is staggering. Right from believing that those with PCOS can't conceive to thinking that those with PCOS can never eat sugar or dairy! Despite having many discussion and debuts, many of the women have false beliefs about PCOS.

-Does PCOS affect only a few women?

PCOS is almost affecting 25% of women. 8% to 10% of women in the reproductive age group. The incidence of PCOS is higher in India, so don't think that it is confined to only a few people.

-It is necessary for a woman with PCOS to have all the symptoms?

Many people believe that all the PCOS symptoms are seen in the body of the women who have PCOS. But every woman doesn't need to show all of the symptoms. Many show few symptoms.

-Do reproductive females only have PCOS?

It can affect any age group of women, including teenagers, the reproductive age group, and the perimenopausal age group.

-Does unwanted hair present all over the body?

Unwanted hair doesn't have to be all over the body. It can present on the upper lip, upper chest, lower back, abdomen, and upper legs.

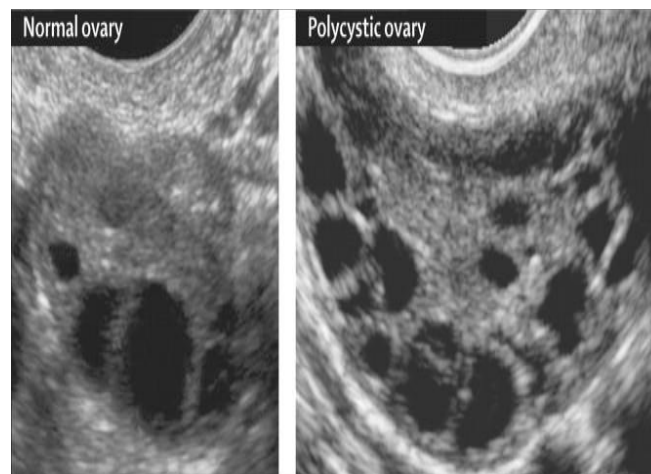


Figure 1: Ovarian ultrasound normal VS Abnormal image appearances comparison.

In this figure, the normal views of the left ovary are the longitudinal view, where it is wider and has multiple follicles, and the transverse view, where it is taller and we can see the follicles inside the ovary. Starting off with the first case of ovarian cysts, these are anechoic, rounded, thin, bald, with posterior enhancement, and they are usually more than three centimetres in diameter. A polycystic ovary occurs when there are more than 20 cysts inside an ovary and the follicle size can range from 2 to 9 millimetres to multiple cysts; this gives a specific appearance.

PCOS is a serious disease, but yes, it can be cured provided that you are really serious about making a few changes in your lifestyle; otherwise, you may spend your life depending on medicines that don't even tap the root cause and say "no to medicines." Contraceptive drugs, anti-diabetic drugs are only pacify the symptoms and don't even tap the root cause. Trying to bring about hormonal balance using medicines may have many side effects.

In Ayurveda, it can be clearly started that no matter how serious this condition gets, you can bring about an ideal hormonal balance in your body by just eating the right foods- "your food is your medicine." Once the hormones settle down, there is balance in the body. Slowly, with this PCOS disease, the intensity lowers, and over a span of 3 to 4 months, the periods regularise. All the symptoms become less intense, and after, say, a period of 4 to 5 months, everything becomes regular.

Treatment for PCOS includes a combination of herbs, therapies and a healthy lifestyle to improve the condition of PCOS. Doing yoga and mediation the most beneficial.

5. Ayurvedic herbal remedy for PCOS:

Use herbs in women with PCOS look for:

- Detoxification of body,
- Strengthening and revitalizing the female reproductive system and regularizing menstrual cycles,
- Rectifying hormonal imbalance,
- Weight loss techniques.

5.1 Shatavari:



Figure 2: Shatavari

Botanical name: *Asparagus racemosus*. Being a powerful adaptogenic herb, it not only relieves one from physical and emotional stress but also manages diabetes mellitus and prevents high cholesterol and triglyceride levels. In a study, 26 women took asparagus regularly for 3 months between the age group 18-34 years. Their menstrual cycle, pregnancy, etc.- all problems and side effects are documented. After 3 months, 19 out of 26 women have cured the problem of menstrual irregularities and hormonal imbalance. Shatavari was taken by women with milk and some in the form of juice.

5.2 Aloe Vera:



Figure 3: Aloe-Vera

Botanical name: *Aloe barbadensis*. Aloe vera is very good for the skin and helps to tone your skin. Aloe vera is also beneficial for the PCOS condition; it's also helpful for nourishment as well as hormone regulation. In the present study, 42 women took 30 ml of this aloe vera juice, which was mixed with a little milk and taken in the morning on an empty stomach for 21 days. It will help you with early menses by correcting for date as well as purifying your blood. And the results were amazing. It was very helpful to all women, and they also got relief from stomach pain during periods.

5.3 Brahmi:



Figure 4: Brahmi

Botanical name: *Bacopa monnieri*. Brahmi is a very popular herb or brain tonic that is used in children for improving academic performance, but it is also an excellent herb to include in your PCOS management. That is because hormonal imbalance also affects

the emotional well-being of women. In this study, a 31-year-old woman with PCOS was observed. The patient consumed 70% of the Brahmi in a 3-month study period. After 3 months, the patients said that during the study period, their testosterone and insulin levels had decreased so much. Including Brahmi in your routine helps manage mental stress much better, and all the emotional ups and downs, depressions, and anxiety that are experienced by women are managed much better when we include Brahmi in their routine.

5.4 Cinnamon:



Figure 5: Cinnamon

Botanical name: *Cinnamomum zeylanicum*. In this study, 15 women who have PCOS have taken cinnamon daily for 8 weeks with added cinnamon in a smoothie and spice mix for dinner meat. After post-treatment, insulin resistance is decreased slowly. If insulin is not regulated, it puts women with PCOS at high risk for chronic diseases down the road.

6. Life style modification:

a. Your food is your medicine:



Figure 6: Healthy plate

First thing first, you need to stop eating packaged, processed foods for a while and switch to only fresh foods. It's not that difficult; just practise the healthy plate method. When you say to "eat," fill half your plate with fresh vegetables. $\frac{1}{4}$ of that plate with the protein-rich food like dal or paneer, and the remaining one-fourth with complex carbohydrates like roti, rice, or millet. Make sure to add 1 TSP of desi ghee to your meal, even though it is highly recommended to directly have 1 TSP of cow ghee on an empty stomach to treat PCOS. Seasonal fruits must be a part of your daily diet; eat them during the day.

b. Exercise:

Exercise is non-negotiable. It is must that you begin strength training as it will make your ovary stronger. You should not miss training your core muscles as well as it will strengthen the pelvic region which is extremely important for the treatment PCOS.

c. Quality sleep:

Quality sleep is the key. The body of a woman react very quickly to hormonal disturbances. Irregular bedtimes, phone calls, TV before going to sleep can make the condition of your hormones worse if they are already a bit off. A peaceful sleep is also crucial for the absorption of minerals which is very important for maintaining proper hormonal balance. so make sure to sleep at the same time everyday and wake up at the same time everyday if you really keen on staying hormonal a vibrant. The best time to sleep is between 10 PM to 6 AM.

d. Avoid plastic:

If you are woman suffering from PCOS you should strictly make it a point to avoid plastic containers, bottles etc as much as possible. This is because when plastic comes in contact with the food it leeches chemicals like xeno explosions into it which are similar to the hormone explosion produced by the human body and it completely messes up the hormonal balance. It will also greatly help if you stop using non-stick and aluminium cooking utensils and switch to something like clay, brass and iron pots.

e. Connection with the Moon:

Woman's body has a very high connection with the moon. The 28-day cycle of Moon and the 28-days menstrual cycle of women is not nearly a coincidence. As a woman you can balance your hormones just by sitting in the moonlight, no it isn't any superstition in ancient India there were many hopes which were charged under the Moonlight.

Suffering from PCOS you to be in the presence of Moon for at least 15 minutes before going to sleep at night.

The results will just amazed you they say a disease can only take hold in a woman when her rhythms are out of sync with the Moon the takeaway is this.

7. Future complication of PCOS:

- Obesity
- Infertility
- Gestational complications
- Miscarriage and premature birth
- Type 2 Diabetes and Pre-diabetes

No.	Name	Botanical Name	Part Used	Constituent Present
1	Triphala	<i>Emblica officinalis</i>	Fruit	Tannin
2	Rose	<i>Rosa spp</i>	Flower	Carotenoids
3	Garlic	<i>Allium sativum</i>	Flower buds	Sulphides
4	Betel nut	<i>Areca catechu</i>	Seed	Alkaloid
5	Sesame	<i>Sesame indicum</i>	Seeds	Protein

Table 1: Other Vegetative herbs used in PCOS**8. Conclusion:**

Normally, the disease ovaries in every patient because, depending on the age of the patient and how long the disease has been there, so depending on these factors, it is very difficult to say how much time is required for this particular problem to get cured. But definitely if the problem is diagnosed at an earlier stage and the patient is also younger.

You can manage PCOS, but for that, you have to manage your anxiety, worry, or depression with the help of a counsellor. Due to the increase in testosterone, the desire for sexual pleasure increases, so it is important to engage the mind in selfless activities rather than intellectualising. Diligently practising these four pillars- Aahar, Vihaar, Achaar, and Vichaar will help you manage this PCOS naturally. These will slowly and unconsciously become your habits, and this will slowly help you see that you become healthier and better and that you really learn to enjoy life very joyfully and very successfully.

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