

## Effect of Eight Weeks Naturopathy Treatment on the Hormonal Profile of Polycystic Ovarian Diseased Middle Aged Women

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### Abstract

The study was conducted to determine the effect of Naturopathy Treatment on the hormonal profile of polycystic ovarian diseased middle aged women. For the purpose of the study 30 middle aged women (28-35 years) suffering from polycystic ovarian disease from New Delhi were selected. The selected subjects underwent Naturopathy Treatment for 4 weeks (2 hours a day for 6 days a week). The hormonal profile was limited to Luteinizing hormone, Follicle Stimulating Hormone, Testosterone and Prolactin. They were measured by fasting sample of venous blood (10ml). The fasting samples of venous blood were administered twice i.e. before and after the 4 weeks naturopathy treatment. Mean, Standard Deviation, Percentage Change and Paired Sample 't'- test was used as statistical procedure for analysing the data. The results of the study revealed a significant improvement in the hormonal profile of polycystic ovarian diseased middle aged women as there was significant decrease in the secretion of Luteinizing hormone (30.69%), Follicle Stimulating Hormone (17.09%), Testosterone (17.60%) and Prolactin (16.31). The polycystic ovarian diseased women experience hormonal disturbance. This hormonal disturbance may be controlled by naturopathy treatment.

**KEYWORDS:** Luteinizing hormone, Follicle Stimulating Hormone, Testosterone and Prolactin.

### 1. Introduction

Polycystic ovary disease is one of the most common endocrine disorders which affect approximately 6% of women of reproductive age. It is a hormone imbalance that can cause irregular periods, unwanted hair growth, and acne. It is now recognized as a heterogeneous syndrome. Affected women often experience disturbed hormonal balance and have signs and symptoms of elevated androgen levels, menstrual irregularity and amenorrhea. The syndrome has an initial onset in the perpubertal years and is progressive. The disease was first defined in 1935 by Stein and Leventhal. It is a disorder in which women do not experience normal release of eggs from the ovaries (ovulation). They have an abnormal production of male hormones and their body is resistant to the effects of the hormone insulin.

Literature shows that PCOD is caused by an imbalance in the hormones (chemical messengers) in brain and ovaries. The disturbance in the neuroendocrine regulation of the hypothalamic-pituitary-ovarian (HPO) axis, leads to increased luteinizing hormone (LH) production and, consequently, to increased ovarian androgen production. The pituitary gland secretes two hormones, luteinizing hormone (LH) and follicle-stimulating hormone (FSH). In general, LH controls the production of female hormones (estrogen and progesterone) in the ovary and FSH controls the development and release of eggs in the

ovary. LH and FSH are released in pulses from the pituitary gland in response to stimulation by gonadotropin releasing hormone (GnRH) from the brain. LH and FSH secretion normally varies throughout the menstrual cycle, and it appears that different patterns of GnRH pulses from the brain affect the different patterns of LH and FSH secretion. Specifically, fast GnRH pulses appear to favour LH secretion, and slow GnRH pulses favor FSH secretion. Estrogen and progesterone from the ovary regulate how frequently the brain secretes GnRH pulses, and also the amount of GnRH secreted per pulse. A key point is that the pulses of GnRH are slowed by the elevated levels of estrogen and progesterone that normally occur after ovulation. Studies suggest that this slowing of GnRH allows for later FSH secretion (at the time of menstruation), which normally leads to egg development in the next cycle. These same studies would suggest that if GnRH pulses are not slowed down, subsequent FSH production is diminished. One can therefore see that this ability to slow GnRH pulses seems to be quite important for subsequent FSH secretion, and therefore subsequent development of an egg.

Polycystic ovarian disease is a growing problem in India, especially in big cities. It is a growing concern of today and every woman should be aware of this. Polycystic Ovarian Disease is one of the most common endocrine disorders. This disease is rising in number now-a-days in most of the women. It is difficult to assess the actual scientific cause of this disease. But most of the research concluded that biological as well as cultural aspects may be the most prevalent causes.

Naturopathy is a form of holistic mind-body medicine which was developed thousands of years ago, is known to reduce sympathetic tone. Naturopathy have shown to be effective in controlling various hormonal changes, increasing insulin sensitivity, reducing fasting blood glucose and improving lipid profiles. Although there are studies which have shown the beneficial effects of naturopathy in many of the associated physiological conditions, to the best of our knowledge, there are no published studies on naturopathy as a treatment for hormonal conditions associated with PCOD to-date. Hence the present study has been planned to study effect of Naturopathy Treatment on the hormonal profile of polycystic ovarian diseased middle aged women.

## **2. Objectives and Hypothesis**

The study was conducted with the objective to determine the effect of Naturopathy on the hormonal profile of polycystic ovarian diseased middle aged women. The hormonal profile was limited to measuring the Luteinizing hormone, Follicle Stimulating Hormone, Testosterone and Prolactin.

After thoroughly going through the literature it was hypothesized that there would be significant effect of Naturopathy Treatment on the hormonal profile of polycystic ovarian diseased middle aged women.

## **3. Procedure and Methodology**

**Subjects:** Thirty middle aged women (28-35 years) suffering from polycystic ovarian disease and had a disturbed hormonal profile were selected as the subjects for the study.

**Training Protocol:** All the selected subjects underwent Naturopathy Treatment of 2 hours, six days a week for four weeks. The Naturopathy treatment included the following treatment protocol:

- i. Application of Gastro Hepatic Pack
- ii. Enema
- iii. Vaginal Douches
- iv. Hot/ Cold Hip Bath (3:1)
- v. Hot and Cold Stomach Bandage.

The diet was strictly controlled by the patients as per the directions during the whole treatment.

**Testing Procedures:** All the subjects selected were administered for fasting samples of venous blood. The samples were taken i.e. before and after the 4 weeks naturopathy treatment. Mean, Standard Deviation, Percentage Change and Paired Sample 't'- test was used as statistical procedure for analyzing the data.

#### 4. Findings of the Study

**Table-1: Effect of Eight Weeks Naturopathy Treatment on the Hormonal Profile of Polycystic Ovarian Diseased Middle Aged Women**

S No	Variables	Pre Test (M± S.D.)	Post Test (M± S.D)	Improvement t (%)	't'
1	Luteinizing Hormone	12.35± 7.88	8.56± 5.65	30.69%	9.254*
2	Follicle Stimulating Hormone	6.32± 1.75	5.24± 1.87	17.09%	8.432*
3	Testosterone	41.76± 18.87	34.41± 17.36	17.60%	8.878*
4	Prolactin	10.18± 2.83	8.52± 3.21	16.31%	7.054*

\*Significant at 0.05 level

The table-1 clearly shows that the eight weeks of naturopathy treatment had brought significant changes in the secretion of Luteinizing Hormone, Follicle Stimulating Hormone, Testosterone and Prolactin leading to an improved hormonal profile of polycystic ovarian diseased middle aged women.

#### 5. Discussion & Conclusion

The results of the study indicated that the four weeks Naturopathy Treatment had significantly improved the hormonal profile of polycystic ovarian diseased middle aged women.

The secretion of Luteinizing hormone was significantly decreased to 30.69%, secretion of Follicle Stimulating Hormone was significantly decreased to 17.09%, secretion of Testosterone was significantly decreased to 17.60% and secretion of Prolactin was significantly decreased to 16.31. The results had indicated that Naturopathy Treatment is an affective mean to control the hormonal disturbance among the women suffering from polycystic ovarian disease which may ultimately leads to overcome this diseases. Studies

have shown that PCOD may be treated by correcting the hormone imbalance and by lowering the level of testosterone which also will improve acne and lessen hair growth. As, the primary cause of polycystic ovary disease is unknown, treatment is presently directed at the symptoms of the disorder. Few treatment approaches improve all aspects of the syndrome. Hence, it is recommended that the findings of the present study must be used to consider naturopathy as a treatment for polycystic ovarian disease.

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