

OVULATION INDUCTION IN PCOS: A CASE REPORT**Smritika Mohanrao Taware¹, Joshi Dnyanesh Sudhakarro²**¹M.S. (Prasutitantra & Stree rog), Assistant Professor, ²M. D.(Samhita), M. A. (Sanskrit),
Ph.D. (Scholar), Assistant ProfessorP.G. Department OF Sanskrit Samhita Siddhanta, Pad. Dr.D.Y.Patil College of Ayurved &
Research Centre, Pimpri, Pune. Maharashtra, India**INTRODUCTION**

PCOS (Polycystic Ovarian Syndrome) is the most common endocrine disturbance affecting women between 15-30 years of age. The disorder accounts for 30% of all infertility cases with 73% of suffering from PCOS experiencing infertility due to anovulation.¹

Association of amenorrhea with polycystic ovaries also called as Stein leventhal syndrome was diagnosed earlier on the triad of amenorrhea, hirsutism and obesity.² Actually PCOS has externally heterogeneous picture. Diagnostic criteria on modified consensus of National institute of health and child health and human Development. Major: Chronic anovulation Hyperandrogenemia. Minor: Insulin resistance perimenarchal onset of hirsutism and obesity.³ Elevated LH to FSH ratio, intermittent anovulation.

For PCOS modern line of treatment is hormone based with many side effects on body. *Ayurveda* has *Shodhana* and *Shamana chikitsa* which help in a case of primary infertility with anovulation and PCOS. It helped in regulating menses and ovulation took place. The result strengthens role of *Ayurvedic* medicine in management of

ovulation. Polycystic ovarian syndrome is manifested by amenorrhea, hirsutism and cystic ovaries.

This complex disorder is characterized by excessive androgen production by ovaries, adrenals which interferes with growth of ovarian follicles. Therefore PCOD is state of androgen excess and chronic anovulation.

Clinical features: Patient complains of increasing obesity, menstrual abnormalities in the form of oligomenorrhoea, amenorrhea or DUB and infertility.⁴

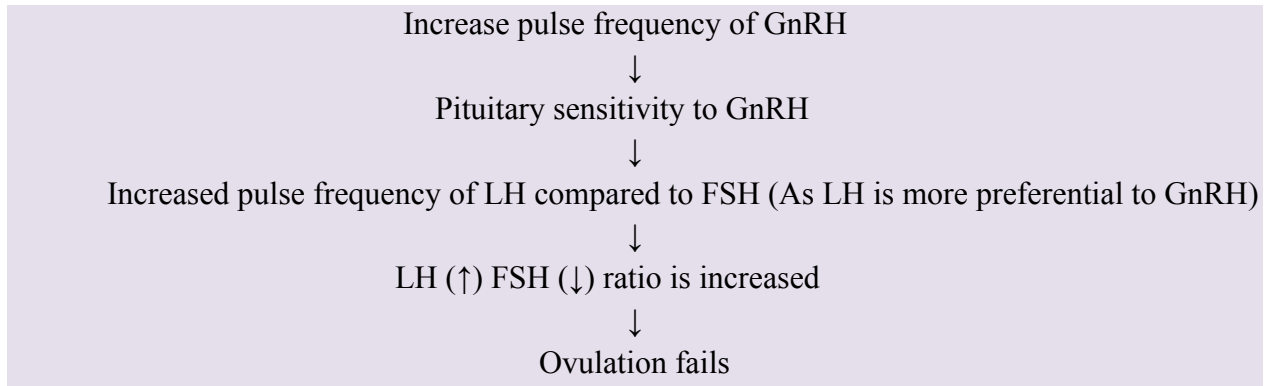
Pathophysiology: It may be discussed as below

- Hypothalamic – pituitary compartment abnormality.
- Androgen excess
- Anovulation
- Obesity and insulin resistance
- Long-term consequences in a patient suffering from PCOS.

Hypothalamic – pituitary compartment abnormality

Hypothalamus





Androgen excess

Principle source of androgens are

1. Ovary
2. Adrenal
3. Systemic metabolic alteration
 - a. Hyperinsulinamia
 - b. Hyperprolactinaemia

Anovulation

Because of low FSH level, follicular growth is arrested at different phases of maturation. Due to elevated LH there is hypertrophy of theca cells and more androgen are produced from theca cells or stroma.

Obesity and insulin resistance

Obesity and excess androgen production is associated with reduced SHBG (sex hormone binding globulin) produced by Liver. It induces insulin resistance and hyperinsulinaemia which in turn increases gonadal androgen production. Long-term consequences in a patient suffering from PCOS. There is concomitant diminished SHBG cumulative excess unbound Oestrogen and Oestrone results in a tonic hyper estrogenic stage. There is endometrial hyperplasia. Risk of developing diabetes mellitus is high.

Treatment of PCOS as per modern.⁶

- Weight reduction – In obese patient it is the initial recommendation as it reduces

insulin, pacifies SHBG and androgen levels and may restore ovulation either alone or combined with Ovulation induction agents.

- Oral contraceptives – Combination pills are used.
- Medroxy progesterone acetate
- Glucocorticoids
- Ovarian wedge resection
- Laparoscopic electrocautery
- Insulin sensitizes Metformin
- Physical Methods of hair removal.

Case Report

29 years old female came into outpatient department of Ayurved hospital Dr, D.Y. Patil college of Ayurved & research Centre, Pimpri, Pune. She was a classic case of primary infertility and amenorrhea and spotting during menses with irregular menses.

She was married since 5 years and giving history of blighted ovum (? Pregnancy). We sent her UPT and it was negative. Her weight was 68 kg. *Jivha* (Tongue) was *sama*. In *Strotas parikshan* else was normal. She had complaint of *Agnimandya* (Loss of appetite) & *Malabaddhata* (Hard Stool). Husband's semen count and other investigations were normal. We sent her for USG. Reports were suggestive of Polycystic Ovaries. She was previously

taking withdrawal for menses every time, she was obese, hirsute and had Acanthosis nigricans⁷ (hyperpigmentation over neck) as seen in PCOS patients.

Medications – We first started with *Shankha Vati* 250 mg three times a day, *Arogyavardhani* 250mg 1 BD, *Gandharvacharitaki* 2gm1HS. She was advised exercise i.e. *Yogasanas* and dietary advices were given. After 3 days *Yoga basti* with *Sahachara taila Anuvasana*, *Niruha basti* with *Dashamula kwatha* and local *snehana* by *Sahachara tail & swedana* with *Patrapottali sweda* was started for consequent eight days along with *Arogyavardhani* 250 mg BD, *Chandraprabha vati* 250 mg 1 TDS, *Kukkutnakhi guggula* 1BD. Then a formulation of *Hingu(Asafoetida)*, *Kanchanar(Bauhinia variegata)*, *Tankan(Borax) bhasma*, *Trikatu*, *Gokshura(Tribulus terrestris)* 250 mg each thrice a day was started along with *Pratimarsha Nasya* of *Ardrak siddha Ghrita* (*Ghee medicated with Ginger*) and results on ovulation was noted. In first cycle she had very scanty menses it was irregular, treatment helped her to regularize the cycle and also for two frequent cycles she had adequate bleeding. Also the patient ovulated on 22nd day on the next cycle. Next cycle II she ovulated on 16th day which never happened before. In previous USG reports before she had multiple follicles and none ruptured before treatment. So the observations were ovulation and size of ovaries was also remarkably decreased. Patient had been followed up after 15 days for 8 months and she started menstruating regularly along

with ovulation. And then she was advised to take *Arogyavardhani* 250 mg BD for 1 month and *Hingu(Asafoetida)*, *Kanchanar(Bauhinia variegata)*, *Tankan(Borax) bhasma*, *Trikatu*, *Gokshura(Tribulus terrestris)* 250 mg each for 15 days along with *Kukkutnakhi guggula* 2BD

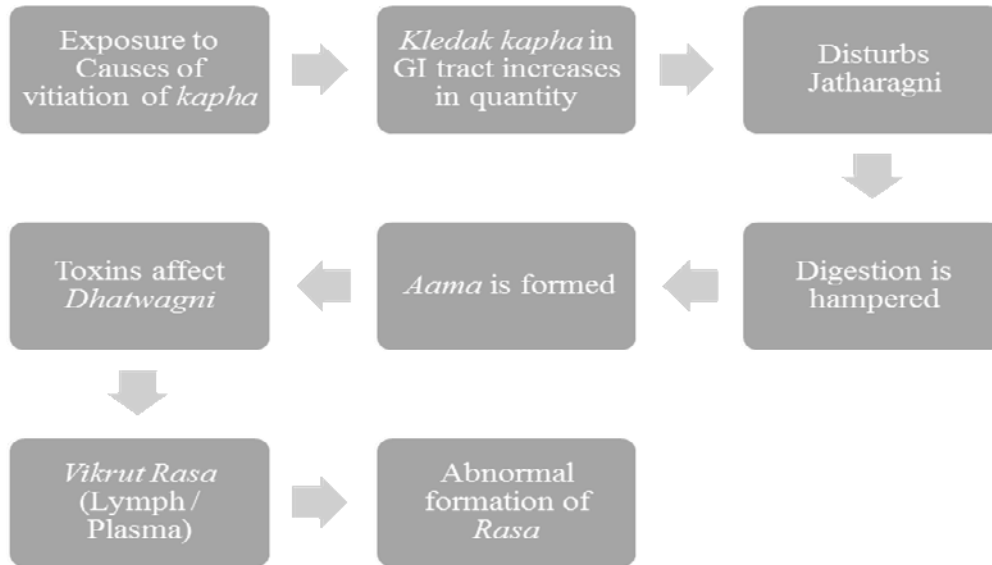
DISCUSSION

Ayurved classifies PCOS as *Kapha* disorder. The organ responsible for reproduction in female's body is called *Artava dhatu*. The channel that supplies, nourishes and enables the functional action of carrying the ovum to the uterus is called *Artava Strotas*.⁸

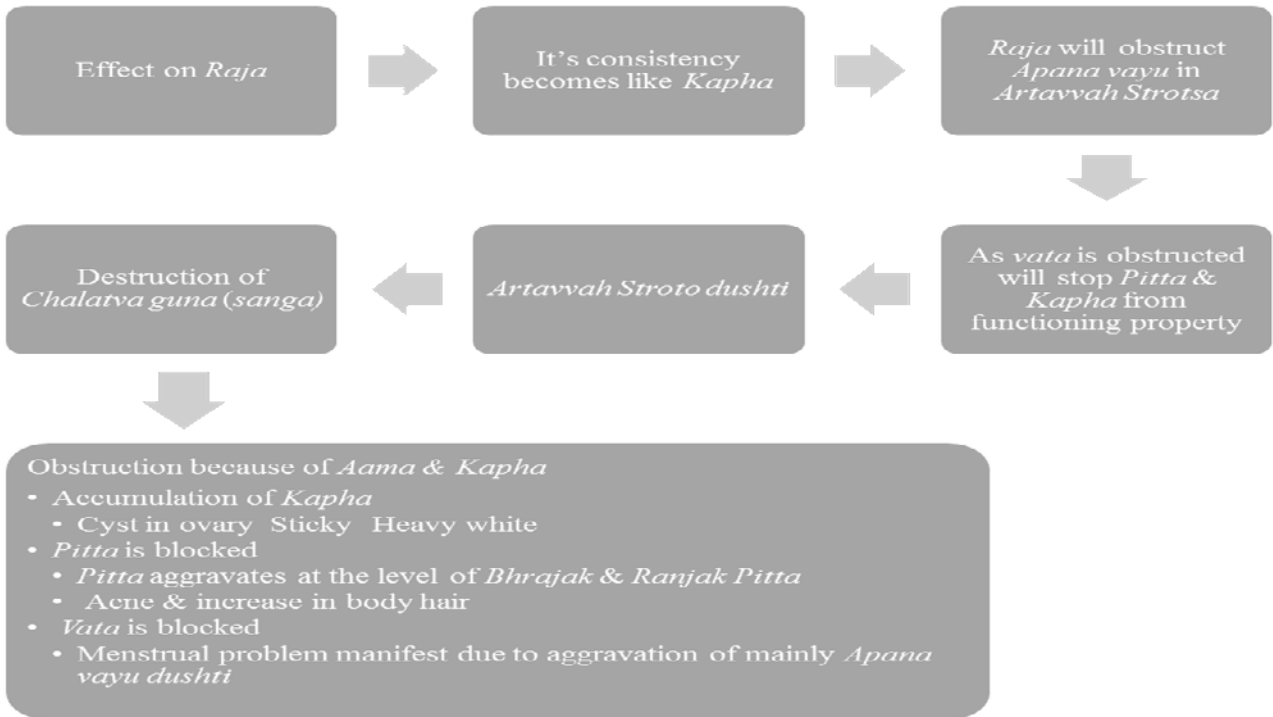
All three *doshas* important and distinctive roles in the process behind the female reproduction which includes the ovarian cycle and the menstrual cycle. *Vata* is responsible for movement of follicles during ovarian cycle, rupture of ovary wall releasing the matured ovum. The movement of fimbriae and the movement of Ovum into the uterus. *Apana vayu* is responsible for these actions as it is the energy behind the downward movement of body through the birth canal during labor.⁹ *Pitta* is energy responsible for transformation which can be seen in influence of hormones on different stages of Ovarian & menstrual cycle.¹⁰ *Kapha* nourishes tissue development of reproductive system with its heavy and cool qualities and enhances follicular growth, mucosal growth of fallopian tube and uterus prevents from drying.¹¹

Pathology in present case can be summarized as follow-

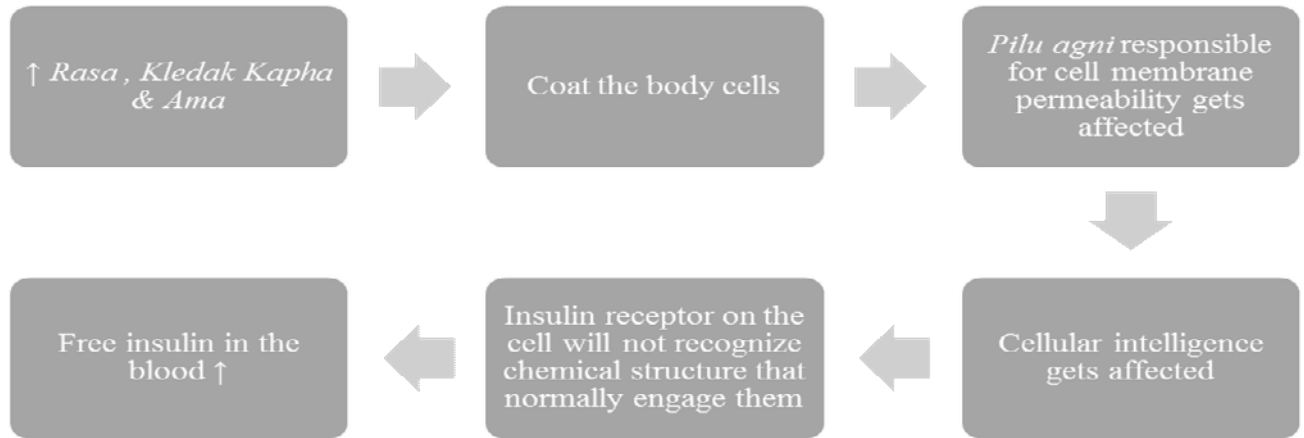
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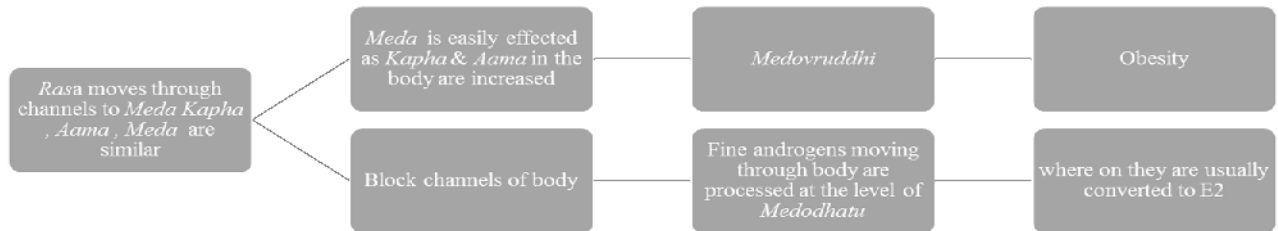
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As we have seen the line of treatment given to the patient it is observed that in the month of August she was given *pachana chikitsa* along with *mrudu virechana* (Mild purgation). After her *samata* was gone *yog basti* with *sahachara taila anuvasana* and *niruha* with *dashamula kwatha* which helped to normalize the vitiated *Apana vayu* and thus regularize menses.

Arogyawardhani helped to stimulate function of liver and thus enhancing *kayagni* and all *dhatwagni*. This gave stimulus to all secreting glands leading to normal secretions i.e. increase in secretion of SHBG by liver which leads to decrease

in androgen production.¹²

Chandraprabha vati helped to increase the strength of *Rajo vaha Strotas* and eradicate obstruction responsible for less or no flow of menses thus helping in regularizing the menses.¹³

Gandharvaharitaki will help to pacify to *Apana vayu*. Also *Yoga basti* will help to pacify *Apana* thus helping the functions of *Apana vayu* to regularize. It will not only regularize menses but also increase the amount of flow help in rupture of ovarian wall realizing mature ovum and help in nidation. *Kukkutnakhi guggul* will help in decrease the increased *Kapha* , *Aaama* and

Meda which will arrest Medovruddhi thus controlling obesity. Also the channels blockage will be relieved as a result free androgen levels will decrease.

Combination choorna of *Hingu* (*Asafoetida*), *Kanchanar* (*Bauhinia variegata*), *Tankan* (*Borax*)*bhasma*, *Trikatu*, *Gokshura* (*Tribulus terrestris*) 250 mg each will help to remove blockage in the channels of *Pitta* and *Vata*. This will help to control the aggravation that previously occurred leading effect on Acne and body hair. *Pratimarsha Nasya* with *Ardraksiddha Ghrita* (Ghee medicated with Ginger) will help to stimulate Hypothalamo pituitary axis normal secretion of GnRH and sex hormone.

CONCLUSION

Thus in our case we saw Stimulation of ovary leading to Ovulation. Also the ovarian volume decreased leading decrease in size of ovaries. This helps in normal ovulation and decreasing size of ovaries, symptoms of PCOS are relieved. Remarkable decrease in weight, normalizing hormones and ovulation leading towards pregnancy is our final output. Thus Ayurvedic treatment proved to be successful in treating PCOS.

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