



A PHYSIOLOGICAL STUDY OF PCOS IN AYURVEDA W.S.R. TO KRIYAKALA

Richa Sharma*	MD Scholar, PG Department Of Kriya Sharir, University Post Graduate Institute Of Ayurveda Studies & Research, Jodhpur, Rajasthan *Corresponding Author
Manish Kr. Sharma	Ph.D. Scholar PG Department Of Kriya Sharir, University Post Graduate Institute Of Ayurveda Studies & Research, Jodhpur, Rajasthan
Rajesh Kumar Sharma	Dean Academic & HoD PG Department Of Kriya Sharir, University Post Graduate Institute Of Ayurveda Studies & Research, Jodhpur, Rajasthan
Dinesh Chandra Sharma	MD (AYU.) Ph.D. (AYU.) Associate, PG Department Of Kriya Sharir, University Post Graduate Institute Of Ayurveda Studies & Research, Jodhpur, Rajasthan

ABSTRACT The term Kriya refers to the identification of the stage of disease progression, which helps in prescribing appropriate measures to correct imbalances in the *doshas*. It is a compound expression, comprised of *Kriya* and *Kala*, where *Kriya* means the choice to treatment used to improve the disturbance in *Doshas*, and *Kala* refers to the stage of progress of a disease. *Sushruta*, has described the concept of *Kriyakala* in *Varnaprashnadhyaya*. Abnormal interactions between *Prakriti* and environmental factors vitiate the *Doshas*, which can lead to hormonal imbalances in females. Moreover, the interaction between vitiated *Doshas* and weak *Rasa Dhatus* manifests as PCOS in a female. *Shatkriyakala* (six stages of progress of a disease), on the other hand, provides a framework to assess the PCOS and its pathogenesis in different stages. According to Ayurvedic concepts, all diseases treat by eliminating vitiated *Doshas*, rejuvenating *Dhatus*. In the present review, an attempt has been made to understand PCOS from the point of view of Ayurveda in the context of Shatkriyakala, with an emphasis on research areas to validate the concept of PCOS w.s.r *Shatkriyakala*. This traditional knowledge can be utilized with modern technologies to detect predisposition for PCOS or diagnose PCOS in its early stages.

KEYWORDS : *Kriyakala*, PCOS, *Samprapti* of PCOS

INTRODUCTION:-

In today's era, many new diseases are coming globally due to today's sedentary lifestyle. Humans' inability to achieve and maintain their internal steady-state balance initiates the disease process. As per the present scenario, it is the time to focus on prevention of diseases in the society with the help of *Ayurveda*.

When a disease begins it passes through six stages, called *Shatkriyakala*, which are important from the point of view of preventive and curative aspects of Ayurveda. *Acharya Sushruta* has mentioned *Shatkriyakala* which gives an idea about the present state of *dosha dushti* and the progress of any disease in the body from the very beginning. It is one of the most important *Ayurvedic* principles that not only explain the stages of disease manifestation but also the treatment approach in detail. According to *Acharya Sushruta* has said that "the treatment of the disease should be started at the proper time. Under no circumstances should it be neglected. Women are that section of this society without which this society cannot be imagined. Women need a disease free mind, body and especially a healthy reproductive system for this creation to run. Due to the complex structure and function of the female reproductive system, women are subject to a large number of complaints related to menstruation and fertility. Among them, polycystic ovarian syndrome is a major burning problem which manifests many problems related menstruation which is directly affected with women's life style and her fertility. PCOS is an emerging disease globally. There are many controversies about diagnosis, clinical features of PCOS. The management of PCOS is difficult and challenging task, faced by allopathic Doctors because of many other complications. So the holistic approach is demanded specially in Ayurveda because of high prevalence here (52%). It can be prevented by the principles of Ayurveda and at the same time effective treatment can be done by identifying it in the early stages. In the early stages, it can be easily identified by the *Shadkriyakal*, so that it can be stopped in the early stages itself. Ayurveda explains a disease based on the *doshas* of the disease, but specific nomenclature of emerging diseases such as those not available in other streams of medicine. This indicates that Ayurveda describes emerging disorders which are explained under different contexts which should be analyzed on the basis of symptoms. The doctor can find out the exact relation of PCOS in the language of Ayurveda according to his knowledge and come to the right conclusion.

- To Understand PCOS briefly from an Ayurvedic Prospective.
- To detect predisposition for PCOS or diagnose PCOS in its early stages.

MATERIALS AND METHODS:-

Ayurveda classics, commentaries, modern literature, research journals and other books were thoroughly studied and then an attempt was made to correlate this syndrome from *Shadkriyakal*.

Pcos In Ayurveda:-

PCOS called Stein and Leventhal syndrome because it was described by Stein and Leventhal in 1935. It is most common disorder in females in their reproductive age. It is considered by a combination of hyperandrogenism either clinical or biochemical, chronic anovulation and polycystic ovaries. It is cause of an ovulatory infertility in females in their reproductive period.

In Ayurveda, any disease is understood on the basis of *Doshas* and *Dushyas*, but unlike other systems of medicine, specific nomenclature of emerging diseases is not available in Ayurveda. There are uncountable diseases on the basis on pain, color, origin, and localization. The doctor should come to the right conclusion after getting the exact correlation of PCOS like diseases in Ayurveda according to his knowledge.

Most of the gynecological disorders are described in Ayurveda as *Yonivyapada* and some menstrual abnormalities have been described separately like *Asrigadara* etc. Knowledge of *Yonivyapada* and *Artavadushti* is necessary for complete knowledge of menstrual disorders. *Bandhya Yonivyapada*, in which main feature is *Nashtartava*. There are eight disorders of artava in Ayurveda but *Nashtartava* described separately. In this condition Artava is not completely destroyed but it is not evident due to obstruction of its route. The passage is covered by *Vata* and *Kapha* and ultimately results in amenorrhoea. The term *Aartava* is widely used in Ayurveda to refer to menstrual blood, ovum, and ovarian hormones.

Though the disease PCOS is not mentioned directly in any of the classics of Ayurveda, it may be under stood on the basis of *Dosha Dushti*, involvement of *Dushya*, *Srotas*, *Ama*, *Agni*, *Adhistana* and *Yadhi Lakshana*. Some conditions can correlate with PCOS like;

AIMS & OBJECTIVES:-

Table no:- 1; conditions can correlate with pcos

Sr. No.	Nearby Correlation with PCOS	Similar Clinical Features with PCOS
1	Granthibhuta Artava Dushti	Vata-Kaphaja Dominance & Menstrual with Cyst
2	Pushpaghni Jataharini	Sthoulya (Obesity), Lomashaganda (Hirsutism), or hairy and corpulent cheeks and Vrithapushpa (Unfruitful ovulation) with menstrual irregularities.
3	Vandhya Yoni Vyapada	Amenorrhoea
4	Artava Kshaya	Scanty and Painful Menstruation
5	Nashtartava	Amenorrhoea, Cyst

If left untreated, this *Doshabalapravritta Vyadhi* may leads to *Adibalapravritta Vyadhi* in next generation due to *Beejadushti*. By *Vyadhishwabhabha*, the condition is said to be *Krichrasadhya* in nature. Due to involvement of genetic, environmental factors and *Bahudosha Sanchaya* it may reach *Asadhya Avastha* too.

The clinical manifestation of PCOS menstrual irregularity and dysfunction related metabolism. Generally Oligomenorrhoea and Amenorrhoea are most common symptoms related menstrual irregularities in PCOS. Hirsutism in 70% of women, acne in 15-30% of women, and anovulatory infertility in 40% of women can be occurs in PCOS. All the symptoms related to PCOS are seen in different states of *Dosha Vishmaya* and *Agni* etc. Therefore this disease can also be seen as a disease that occurs when all these components are combined together. Therefore, the study of this pathology should be done according to the following parameters.

- Vikara & Prakriti - Amenorrhoea or oligomenorrhoea continues bleeding after a certain period of amenorrhoea.
- Adhishtan (Variation in the site of disease)- Ovary, Skin.
- Samuthan vishesha (Specific onset of the disease with specific etiology)- Sedentary lifestyle.

Purvarupa (Prodromal Symptoms):-

Purvarupa are the caution lights to warn the patient and doctor about the pathogenesis occurring in the body and makes them run towards exact diagnosis of the disease. But prodromal features of PCOS are not mentioned in texts.

RUPA (SYMPTOMS):-

Rupa is a manifested stage of disease. It, on one hand, provides clue for the confirmed diagnosis and simultaneously, on the other hand, tells about severity and chronicity of the diseased condition. *Rupa* always appear after *Dosha-DushyaSammurcchna*. As this disease is not described in Ayurvedic texts directly but we can correlate the symptoms according to ayurveda as follows: 1. Artava Dushti: Menses can be scanty, irregular, delayed in a PCOS patient or there may be amenorrhoea. This may be due to vitiated *Kapha* and *Vata*. As there is *Ras Dhatu Dushti* so there is *Dushti* of *Updhatu* also i.e. *Artava*. Some also have excessive menses. This may be due to vitiation of *Pitta*. Acc. to Acharya Bhavamishra and Sarangdhara Artava is *Updhatu* of *Rakta*. In PCOS patients there is vitiation of *Rakta* also so *Artava* also got affected. Amenorrhoea may be due to *Srotoavrana*. 2. Sthoulya: It occurs due to imbalance between calorie intake and energy expenditure and there is disturbed metabolism. This can be considered as *Dhatwagni Mandya* (hypofunctioning) which causes *Dhatuvidhi* i.e. *Medo* *vidhi*. As *Kapha* is found vitiated so due to its *Prithvi*, *Apa* *Mahabhuta* predominance there is heaviness in the body and weight gain. But there is *Karsya* also found in some patients. This is present due to *Ras Dhatu Dushti*. 3. *Yuvanpidika*. : Due to *Nidana* *Sevena* there is *Rakta Dhatu Dushti*. *Dushita Rakta Dhatu* causes *Yuvanpidika*. 4. *Atiloma*:. Acharya *Susruta* and *Vagbhata* said that *Nakh(Nails)* and *Roma* are mala of *Asthi Dhatu*. So due to *Dushti* of *Asthi Dhatu* there is excessive hair growth. 5. *Neelika*: Due to *Rakta Dhatu Dushti* there is *Vaivaranya* of *Twak* i.e. *Neelika*. 6. *Anaptyata*: As there is *Dushti* of *Artava* and *Artavavaha Srotas* so *Anaptyata* occurs.

Samprapti (Pathogenesis) Of Pcos In Context Of Kriyakala:-

The *Samprapti* takes two fold instantiations as in *Prameha*- *Sthula* and *Krishna Vyadhita*. *Sthoulya* and *Karshya* are said to be *Rasanimitajha*. therefore the *Rasavaha Srotas* *dushti* and indecorous *Dhatu* *Poshana* *Krama* may be the pathophysiology in *Artava Dushti*. In *Samprapti* associated with *Sthoulya*, *Avarana* due to *Kapha* and *Medodushti* are the significant findings with *Sanga* and *Srotoavarodha*, *Amotpatti* and *Rasadi Dhatwagnimandya* leading to *Granthibhuta Artava* and *Anaptyata* as in those desirous of get. In *Karshya* *Samprapti*,

Vataprakopa and *Dhatu Kshaya* *Lakshanas* with *Medo Dhatu Kshaya* leading to *Aniyamita Artava* or *Anartava*(oligo- ovulation/ anovulation) and *skimp period*, leads to *Anaptyata*. Acharya *Sushruta* has described ' *Shat Kriyakala* ' for the development of any complaint which seems to be more logical and scientific in considering etiopathogenesis of PCOS according to Ayurveda. Then, a humble attempt is being made to describe pathogenesis of PCOS on the base of ' *Shat Kriyakala* '.

1. Sanchaya:

In PCOS, stress and other etiological factors stimulate brain and there's imbalance in the functioning of H- P- O axis. Due to colorful *Nidana* *Sevena* there's *Tridosha Dushti* as well as *Agni* *vitiation* which produces colorful *Lakshanas* acc. to the separate *Dosha*. a) *Kapha Sanchaya* *Lakshana*- *Gaurava*, *Alasya* b) *Sanchita Vata* *Lakshana* like *Stabdha Koshtata* c) *Sanchita Pitta* *Lakshana* like *Mandoshmata*. d) If *Achaya* *Poorvaka* *Prakopa* takes place these may not be inspired.

2. Prakopa:

Due to impairment of *Agni*, indecorous digestion of food results in product of *Ama Rasa* which may further compound vitiated *Kapha*. a) *Vata* *Prakopa* *Lakshana* like *Koshta* *Toda*, *Vata* *Sanchara* b) *Pitta* *Prakopa* *Lakshana* like *Amlika*, *Pipasa* c) *Kapha* *Prakopa* *Lakshana* like *Annadwesa* may be inspired.

3. Prasara:

Vitiated *Rasa Dhatu* and *Rasagni* *Mandya* causes *Srotodushti*. Progression of the pathological events is replaced by *Uttrotara*(progressive) *Dhatwagnimandya* and *Uttrotara* *vitiation* of *Dhatu*. also, rotation of *Ama* *Anna* *Rasa* may increase *Srotorodha*. a) *Vimargagamana*, *Atopa* *Lakshana* of *Vata* b) *Arochaka*, *Avipakaetc.* of *Kapha* may be observed.

4. Sthanasamshraya:

In this stage Vitiated *Rasa* and *Kapha* produce *Dosha* *Dushya* *Sammurcchna*. a) *Vata* *Lakshana* like *Angamarda*, *Agnimandya*, *Apravritti/ Atipravritti* or *Asamyak Pravritti* of *Raja*. b) *Kaphaja* *Lakshana* like *Manda pravritti* or *Apravritti* of *Raja*, *Sthoulya* *Dosha*, etc. may be observed.

5. Vyakta:

In this stage incarnation of colorful signs and symptoms in different systems of the body. therefore, *Dosha* *Dushya* *Sammurcchna*, if not treated, leads to incarnation of symptoms of complaint. *Yathochitakala* *Adarshanam*, *Alpata*, *Yoni* *Vedana*, *Atipravritti*, *Anaptyata*, *Beeja* *Granthi*(*Cystic ovaries*), *Sthoulya*, *Atilomata*, *Karshnya*, *Yuvanapidika* are some of the clinical features PCOS(*Artava* *Dushti*).

6. Bheda:

Sixth Kriyakala- Disease, if left undressed or not duly treated, leads to complicationse.g. *Dirghakala* *Anubandha* *Lakshana* like *Anaptyata*, *Atilomata*, *Sthoulya*, *Vata* *Vikara*, *Artavanasha*, *Avaranajanya* *Vyadhish* like *Hidroga*, *Vidradhi*, *Gulma*, *Vata* *Vikara*, etc.

Upadrava (Complications):-

1. Cardiovascular disease: In this disease there is *Dushti* of *Rasavaha Srotas*. As *Moola* of *Rasavaha Srotas* is *Hridya* and *10 Dhamniya*. So disease of cardiovascular system occurs.
2. Diabetes mellitus: Acharya *Dalhana* has mentioned that the women who menstruate regularly do not affected by *Prameha*. In PCOS, menses can be scanty, irregular, delayed or there may be amenorrhoea. So there is a chance of diabetes mellitus in PCOS. *Prameha* and *Artava Dushti* both are *Rasapradoshaja* *Vyadhi*.
3. Endometrial carcinoma: Due to *Dhtawagnimandya* there is *Ama* *formation* i.e. *toxins*. There is *Rakta*, *Mamsa* *Dhatu* *Dushti* also present. So if the disease is *Dirghakala* *Anubandhi* there is a chance of *Arbuda* *formation*.

Table No:- 2; Summarize The Samprapti Ghatakas

Sr. No.	Samprapti Ghatak	Doshadi Ghatak
1	Dosha	<ul style="list-style-type: none"> • Vata: Apana Vata, Samana Vata • Pitta: Pachaka Pitta, Bhrajaka Pitta • Kapha: Kledaka Kapha
2	Dushya	<ul style="list-style-type: none"> • Dhatu:-Rasa, Rakta, Mamsa, Meda, Asthi • Upadhatu:- Artava

3	Agni	Jataragni, Dhatwagni, Bhutagni. [Vishama and Manda]
4	Srotas	Rasavaha, Raktavaha, Mamsavaha ,Medovaha, Asthivaha, Artavavaha, Annavaha ,Purishvaha, Mutravaha, Swedavaha.
5	Srotodushti Prakara	<ul style="list-style-type: none"> Sanga- It denotes to arrested growth & development of follicle and release of ovum, Siragranthi -(as Sira is synonymous with Srotas)
6	Udbhavasthana	Pakwashaya
7	Vyaktisthana	Artavavaha Srotas and Sarvasharira
8	Adhistana	Artavavaha Srotas, Ovary, Skin
9	Sancharasthana	Sarvasharira
10	Rogamarga	<ul style="list-style-type: none"> Bahya- Twak, Raktadi dhatu involvement Abhyantara- Koshta, Pakwashaya
11	Sadhya-Asadhyatwa:	Kashtasadhya, Yapya.

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CONCLUSION:-

PCOS is a *Vata Kaphaj* disease, which needs to be stopped in the initial stage, if it is not stopped in the initial stage, then it increases in severity, so by understanding the *Satkriyakala*, this disease can be stopped in the initial stage. This traditional knowledge can be utilized with modern technologies to detect predisposition for PCOS or diagnose PCOS in its early stages. It can be treated by *Ayurveda* in initial stage by knowing *Satkriyakala*. We can cure PCOS easily through *Ayurveda* in its early stages of *Kriyakala*.

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