



Review Article

AYURVEDIC PERSPECTIVE OF POLYCYSTIC OVARIAN SYNDROME

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ABSTRACT

Polycystic Ovarian Syndrome is the leading cause of female infertility in the present scenario. It is one of the important reproductive endocrine disorders in the world. The various conditions associated with PCOS show similarities with *Gulma*, *Prameha*, *Sthoulya*, etc. *Pushpagni Jaataharini* mentioned in *Kasyapa Samhita* bears some similarities with clinical presentations of this disease. *Nashtarthava*, *Arthavakshaya*, and *Vandhya yoni Vyapath* mentioned in *Susrutha Samhita* can also be taken into account.

As PCOS is a metabolic disorder, there is impairment of the function of *Agni* at various levels. The disease can be considered as a *Bahudoshavastha*. It begins as a *Vata* imbalance, which pushes *Kapha* and *Pitta* out of balance in the *Arthavavaha Srothas*. *Samsodhanam*, use of *Agneya Dravyas*, use of *Swayoni Vardhana dravyas*, and avoidance of etiological factors is the main treatment principle.

Ayurvedic classical textbooks along with available modern literature were referred to make a clear understanding of the concept of Polycystic Ovarian Syndrome. The clinical symptoms of Polycystic Ovarian Syndrome like amenorrhea and hyperprolactinemia are seen in *Rakthagulma*. The clinical manifestation and pathology of the disease are very close to that of *Prameha*. *Nashtarthava* explained by *Acharya Susrutha* mentions that due to *Vatha Kapha Avarana*, *Arthavanasha* occurs in females. This can be correlated with amenorrhoea associated with Polycystic Ovarian Syndrome. In *Vandhya yonivyapath*, *arthava* is destroyed. This can be considered secondary amenorrhoea or anovulation which ultimately causes the inability to conceive a child.

INTRODUCTION

PCOS is associated with a wide spectrum of presenting features including menstrual irregularities, anovulation, infertility, obesity, hirsutism, and insulin resistance. It affects multiple systems and requires a comprehensive perspective on health care for effective management. Metabolic derangements and associated complications include insulin resistance and diabetes, hypertension, fatty liver, and sleep apnea. Reproductive complication includes oligo-/amenorrhoea, subfertility, endometrial hyperplasia, cancer, etc. Cosmetic issues include hirsutism androgenic alopecia, acanthosis, and acne.

The current diagnosis of PCOS is made by Rotterdam criteria which include oligo/anovulation, clinical and biochemical effects of hyperandrogenism, and polycystic ovaries. (i.e., cysts 2-9 mm in diameter, more than 12 in number arranged peripherally, and ovarian volume greater than 10ml) plus the exclusion of other hyperandrogenic conditions. The conventional method of management of PCOS includes ovulation induction using Clomiphene citrate, Metformin, Troglitazone, Aromatase inhibitors, Glucocorticoids, Gonadotropins, etc. The surgical procedures include laparoscopic drilling or puncture of cysts using laser or unipolar electrocautery.

Ayurveda describes different gynecological disorders under the heading of *Yonivyapath*, *Arthava Vyapath*, *Beeja Dosh*, *Granthi*, *Arbuda*, and *Sthanarogas* in detail. None of these conditions describe anovulatory condition associated with Hirsutism. PCOS though a syndrome cannot be correlated to a particular disease. Conditions like

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Vandya, Arajaska, Nashtarhava, Arthavakshaya, and Pushpaghni jathaharini to some extent can be related.

MATERIALS AND METHOD

Ayurvedic classical textbooks, modern medical textbooks, online articles, and journals were reviewed to gain all the possible information regarding this topic and the information was critically reviewed to arrive at the following observations.

OBSERVATIONS

As it is a syndrome, the exact correlation is difficult, but the clinical symptoms of the disease can be included under the following headings. The metabolic symptoms like obesity, Insulin resistance can be included under *Sthoulya* and *Prameha*. Hyper androgenic symptoms such as acne and baldness can be correlated with *Mukhadooshika* and *Khalathi* respectively. Anovulation resulting in amenorrhoea or irregular cycles is described under the disease *Vandhya* and *Pushpaghni jaataharini* by *Acharya Kasyapa*. Clinical symptoms like menstrual irregularities (amenorrhea) and bloating of the abdomen can be seen in *Raktha Gulma*.

Diseases in classical texts resembling Polycystic ovarian syndrome

Rakthagulma

The clinical symptoms of PCOS like amenorrhea and hyperprolactinemia are seen in *Rakthagulma* also. *Dalhana* says that the presence of amenorrhoea is a specific characteristic of the disease. *Acharyas* have different opinions regarding the cause of the appearance of breast milk in *Rakthagulma*. According to *Kashyapa*^[1], the woman considers herself pregnant and has affection and determination for her fetus. Due to this affection milk is formed and excreted through the breasts. According to *Chakrapani*, amenorrhea and the nature of the disease is responsible for milk production. In Ayurveda, there is a bidirectional relationship exists between *Arthava* and *Sthanya*. Also, we can find several studies that document elevated levels of prolactin in patients with PCOS. An alteration of opioidergic-dopaminergic tone has been the postulated mechanism for this observation. However, recent studies have found that prolactin elevation in these patients is transient and likely related to underlying stress, use of offending drugs, or hypothyroidism^[2].

Prameha

Prameha is the condition caused by the impairment of *Kapha Dosha* and *Ap Mahabhutha*. Due to the indulgence in *Sleshmakara Ahara Vihara, Jataragni Mandhya* occurs leading to *Asamyak Ahara Parinama*, especially concerning *Sleshma* resulting in *Amaroopi Sleshma Uthpathi*. This *Amaroopi sleshma* attains *Aghanatha* as there is a loss of *Samvahana in Kapha swaroopa*, leading to the formation of

Bahudrava Sleshma^[3] causes *Sareeasaithilyatha*. This *Shithilitha of Sareera* pave way for the easy circulation of *Prakupitha Sleshma* throughout the body through *Srothas* with the help of *Vyana Vayu*, ie, the *Prakupitha Sleshma* circulating through the tissues and cells of the body begins to deplete the *Agni* of each cell by saturating them, this decreases their responsiveness to insulin and other hormones. The Insulin becomes unable to engage cellular receptors. *Prameha Purvaroopo lakshanas* like *Ghanangatha, Madhura Asyatha*, etc suggest deranged glucose metabolism. The etiology, clinical manifestation, and pathophysiology of PCOS are very close to that of type 2 diabetes, a combination of insulin resistance and cell failure.^[4]

Sthoulya

Ayurveda accepts *Sthoulya* as *Dushya* dominant disorder. i.e., *Medhodhathu Vrudhi* in order of both qualitative (*Snigdamsha* of *Medus*) and quantitative. It occurs as a result of over intake of *Madhura Snigdha dravya* and *Adhyashana* along with *Avyayama* which explains high energy intake and low energy expenditure. This results in the formation and movement of excess *Madhura Snigdha Ama Annarasa* which leads to the accumulation of increased *Sleshma* in *Dhathus* (can be correlated to triglycerides, cholesterol, and lipids) and *Vikrutha Medovrudhi*. This creates *Srothorodha* and disturbances in the movement of *Vayu* towards *Koshta* which cause faster digestion and assimilation. The increased *Snigdamsha* of the *Amaroopo Annarasa* leads to *Dhatwagnimandya, Medovaha Srothodushti*, and the manifestation of *Sthoulya*. While describing *Sthoulya* *lakshana Charakacharya* mentions *Meda Mamsa Athivrudhi* in the buttock and abdomen.^[5] Women with PCOS have android obesity which is seen as a waist-hip ratio of greater than 0.85 (central obesity) and many of them have increased BMI. According to recent studies, visceral obesity is the most significant variable correlating with metabolic dysfunction in women with PCOS. The biological mechanism responsible for the association between BMI and anovulatory cycles is not clear. One hypothesis is that obesity affects the hypothalamic-pituitary-ovarian axis. Excess-free oestrogen, resulting in the increased peripheral conversion of androgen to oestrogen in adipose tissue, combined with decreased availability of gonadotropin-releasing hormone (GnRH) could interfere with hypothalamic-pituitary-ovarian function, causing irregular or anovulatory cycles.

Pushpaghni Jathaharini

Clinical symptoms of PCOS show similar to *Pushpaghni jathaharini* described by *Kashyapa Samhitha Revathi Kalpadhyaya*.

Vridha pushpam tu ya nari yadha kalam prapashyathi | Sthoola lomasha ganda va pushpaghni sa api Rewathi || (Ka.sa.ka.32/2)

From the above verses, we can understand that *Pushpaghni Revathi* has although regular but fruitless cycles, has corpulent cheeks with excessive hair growth. This may be considered a clinical manifestation of hyperandrogenism and anovulation. This satisfies two features among 3 criteria of Rotterdam classification.

Nashtarthava^[6]

Nashtarthava is a condition that is described by *Acharya Susrutha*. According to *Dalhana teeka*, either *Kapha* or *Vatha* alone or *Kapha Vatha* together may cause *Aavarana* (obstruction) to *Arthavavahasrothas* leading to *Nashtarthava* (amenorrhea). *Nashtarthava* explained by *Acharya Susrutha* mentions that due to *Vatha Kapha avarana*, *Arthavanasha* occurs in females. This can be correlated with amenorrhea associated with PCOS. In *Vandhya Yonivyapath*, *Arthava* is destroyed. This can be considered secondary amenorrhea or anovulation which ultimately causes the inability to conceive a child.

Arthavakshaya^[7]

“Arthavakshaye yadhochitha kala adarsana alpatha va yonivedana cha

- *Yathochittakala adarshana*- Delayed menstruation. If menstruation fails to occur by one month showing irregularity in the cycle & increased intermenstrual period can be termed *Yathochittakala adarshana*.
- *Alpata* - scanty menstrual flow. This may be considered as reduced menstrual flow.

Yoni vedana- pain in vaginal region. Vitiating of *Vata* causes *Yoni Vedana*. The *Vata* mainly affected is *Apana Vata*.

Vandhya ^[8].

According to *Susrutha*, it is one of the 5 types of *Vataja yonivyapath*. In *Vandhya yoni vyapt*, *Arthava* is destroyed. Here we can interpret *Arthava* as ovum. It can be considered as secondary amenorrhea or anovulatory menstrual cycles which may result in *Anapatyatha* or infertility.

Nidana

The aetiological factors include indulgence in *Mithya ahara vihara*, *Pradushtarthava*, and *Beeja dosha Mithyahara* including the consumption of junk food and fast food. It has been tested that frequent fast-food consumption has led to the oxidative damage associated with inflammation. Another important example of *Mithyahara* includes the concept of *Virudhahara*. As per the definition explained by *Charaka*, those food substances and combinations which induce deteriorating action on the dhatus can be called *Virudhahara*. *Charaka* mentioned the diseases, such as *Shandyathwa* and *Sandanadosha*, caused due to excess consumption of *Virudha anna*.

The sedentary lifestyle along with improper diet, faulty sleeping patterns, and psychological factors such as stress, anxiety, and pressurized competition point to the *Mithya vihara* of modern society. The presence of these factors adds the impaired metabolism. Chronic anxiety and depression are the most psychological pattern in PCO patients.

The word *Pradushtarthava* denotes the aberrations of the hypothalamic-pituitary-ovarian axis. In PCOS, alteration of the HPO axis occurs, and the manifested biochemical abnormalities include high LH/FSH ratio, elevated androgen production, and high estrogen levels due to the peripheral conversion of androgens in adipose tissue which in turn leads to the alteration in normal hormonal activity. Various chromosomal and genetic abnormality comes under the heading *Beejadushti*. The genetic origins of the disease are likely polygenic or multifactorial. This is a complex multigenic disorder that results from the interaction between multiple genetic and environmental factors. A high prevalence of PCOS or its features among first-degree relatives is implicational genetic influences.

Purvaroopa

The term *Purvaroopa* refers to a stage when the mild symptoms of the disease manifest, that is the initial stage before a full-blown manifestation. Specific reference for the *Purvaroopa* is not present in the classics. Hence in this disease where very minimal or mild symptoms pertaining to the disease are seen, the *Purvaroopa* stage can be considered. So, slight irregularities in the menstrual cycle, weight gain, mild acne, etc. can be included under *Purvaroopa* as it gives clues about the forthcoming disease.

Roopa

- Clinical symptoms like menstrual irregularities (amenorrhea), and bloating of the abdomen can be seen in *Raktha gulma*.
- Menstrual irregularities such as oligomenorrhea, and amenorrhea are included in various *Yonirogas* (*Vandhya*) and *Arthava Vyapaths* (*Arthavakshaya*, *Nashtarthava*, *Asrigdara*).
- Anovulation resulting in amenorrhea or irregular cycles is described under the disease *Vandhya* and *Pushpagni jaataharini* by *Acharya Kasyapa*.
- Obesity, described as *Sthoulya* can be included in *Santharpanajanya rogas*.
- Hyperandrogenic symptoms such as acne and baldness can be correlated with *Mukhadooshika* and *Khalathi* respectively.
- Hirsutism is described as *Athilomatha* under *Ashtaninditha Purusha lakshana* by *Charaka*.
- *Sthula loma* described in *Pushpagni jaataharini* also refers to hirsutism and acanthosis can be correlated with *Karshnya*.

- Hyperinsulinaemia, commonly leading to Type 2 diabetes mellitus is described under *Prameha*.

Doshic involvement of PCOS

Any imbalance or diseased condition is seen as an interplay and imbalance between the *Thridoshas*. PCOS is considered as *Bahudoshavastha*. The disease begins as a *Vata* imbalance, which pushes *Kapha* and *pitta* out of balance in the *Arthavavaha srothas*, or reproductive channel. When *Vata* becomes vitiated in

the *Arthava Vaha Srothas*, it manifests as an irregular menstrual cycle. *Pitta* vitiation leads to acne, hirsutism, acanthosis nigricans, and hormonal imbalances including excess circulating testosterone in the body. *Kapha* vitiation leads to symptoms associated with hyperthecosis, and weight gain. All the *three Doshas* play an important and distinctive role in the proper manifestation of *Rituchakra*, including the processes like ovulation.

Table 1: Doshic involvement in PCOS

Evidence/ Symptoms	Dosha	Sub Dosha	Dhatus/ Upadhathu	Srothas
Irregular Menstruation	Vata	Apana Vata	Arthava	Atharva vaha srothas
Hirsutism	Vatha Pitha		Raktha/Shukra	
Acne	Pitha	Ranjaka Pitha	Raktha/Shukra	Raktha/sukravah srothas
Acanthosis nigricans	Pitha	Bhrajaka Pitha	Raktha	Rasa /raktha vaha srothas
Insulin resistance	Kaphavrutha Vatha (Kapha Vrudhi, Agni Vikruthi and Kleda Nirmithi Cause Avarana)	Vyana, Samana and Apana Vatha Kledaka Kapha	Medho Dhathu	Rasavaha Medovaha Mamsavaha
Obesity	Kapha	Avalambaka Kapha	Rasa, Mamsa, Medas	Rasavaha, Mamsavaha, Medovaha srothas.
Anovulation	Kapha	Arthava		Arthavavaha srothas

Samprapti (Pathogenesis)

The *Astanga Hridayam* notes that “without the aggravation of *Vata*, the women’s *Yoni* does not get disordered [9]. Hence this *Vata* should be won over first and the others treated next. *Vata* is understood to control all movement and *Kapha* and *Pitta doshas* require *Vata dosha* to provide movement. *Apana Vayu* governs the expulsion of *Shukra*, *Arthava*, *Shakruth*, *Muthra*, and *Garbha* become blocked by the increase of *Kapha dosha* in the body. The blockage of *Vata* subsequently blocks *Pitta* also. This vitiation interrupts the movement and transformation of hormones, which are thus unable to perform their actions.

The major etiological factors like *Athisnigdha*, *Madhura*, *Abhishyanthi* (high-calorie food and junk food) *aharas*, *Diwaswapna*, *Alpa vyayama*, etc vitiate *Kapha dosha*. The above-mentioned *Nidanans* lead to the impaired function of *Agni* at various levels (*Jataragni*, *Dhatwagni*, and *Bhuthagni*). This *Agnimandya* can lead to the formation of *Asamyak pachitha ahara rasa (Ama)* in the body. The vitiated *Kapha* and *Samarasa* increase the *Snigdhamsha* of the body and causes *Srothorodha* finally leading to *Vatha Vaigunya*. The vitiated *Vatha* and *Kapha* cause *Avarana* of *Arthava Vaha Srothas* to lead to *Arthava Nasha*.

Agneya property of *Pitha* is responsible for the functioning of *Arthava*. The normal function of *Arthava* is *Rakthalakshanam* (resembling *Raktha*) and *Garbhakrith* (proper ovulation). The increased *Snigdhamsha* of the body affects the property of *Pitha* and hence *Arthava*. This can lead to irregular menstruation and impaired ovulation.

The *Sama Rasa Dhathu* circulates through the tissues and cells, its *Guru Snigdha guna* begins to deplete *Agni* of each cell by saturating them, this decrease the responsiveness to insulin and other hormones, that is the insulin is unable to engage cellular receptors and begins to build up in the bloodstream moving towards the *Arthava dhathu* where it comes across free receptors that engage its molecular structure.^[10]

There is a similar effect of *Kapha* in the *Medo dhathu*. The *Medo dhathwagni* is affected by the *Ama* created in the body by excess *Kapha Dosha*, which in turn leads to increased *Medo dhatu* or fat in the body this causes obstructions in some of the *Srothas* of the body. As the *Ama-rich Medas dhatu* enters deeper into the body and feeds the *Artava Dhathu* it leads to an

increase in the formation of tissue within the reproductive system creating cysts. It "affect(s) the cellular intelligence of the cell by dampening *Agni* causing error in cellular function as seen when insulin engages receptors on the ovaries causing the production of androgens"^[11]. *Kapha* has thus accumulated in the *Artavavaha srothas* and is seen manifested through the formation of hyperthecosis in the ovary and subsequent absent menstruation.

Samprapthi Ghataka as

- *Dooshya* - Involvement of almost all the dhatus can be seen in PCOS and the *Lakshanas* with each *Dhatu dushti* are enlisted below^[12]
- *Rasa* -- *Srothorodha, Klaibya, Agni Mandhya, Khalathi, Palitha, Kapha, Vridhi Lakshanas* like *Gaurava, Agnisada*, etc
- *Raktha* -- *Asrigdara, Vyangam, Gulma*
- *Mamsa*-- *Udara Gouravam*
- *Medas* -- *Athisthoulya, Purvarupa of Prameha*
- *Asthi* -- *Kesa Loma Smasru Dosh*
- *Sukra* -- *Vandhyatwa*
- *Arthava* -- *Vandhyatwa, Arthava Naasha*

Prognosis

It is said that the diseases arising in *Abhyanthara Rogamarga* are *Sukhasadhya, Madhyama* is *Asadhya*, and *Bahya* is *Krichrasadhya*. So, analyzing the above correlations, we can tell it is *Krichrasadhya* because PCOS is a syndrome with a complex set of symptoms arising in the three *Rogamargas*. Although PCOS is not a completely curable disease, the adverse features of the disease can be ameliorated with medications and lifestyle modifications. So it can be included in the category of *yapya roga* also.

Management of Polycystic Ovarian Syndrome

The main objective of *Chikitsa* is *Samprapti vighatanam*. This can be achieved in two ways, *Samsodhanam* and *Samsamanam*. *Samsodhana* can be done in *Bahudoshavastha*. These are therapeutic measures applicable to clear the excessively accumulated *Doshas* from the body. *Samsamana* includes *Oushadhas* which pacifies the disease and are advised in *Madhyama Doshavastha*. In *Alpa doshavastha, Langhana Chikitsa* can be adopted. Hence the mode of treatment varies according to different stages of vitiated *Doshas* and *Dhatus*.

Treatment principles

1. "Vathakaphavritha maarganam apravrithamanam pithalair upachareth tat Pravrithamanam"^[13]
2. "Samksepatha: kriyayogo nidana parivarjanam"^[14]
3. "Tatra samsodhanam aagneyaanam cha dravyaanam vidhivat upayoga"^[15]
4. "Tatrapi swayonivardhana dravyopayoga:"^[16]

Samsodhanam, use of *Agneya dravyas*, use of *Swayoni vardhana dravyas*, and *Nidana parivarjanam* ie. Avoidance of etiological factors is the main treatment principle.

Samsodhanam

It is a measure by which the waste products or harmful products are thrown out either by *Urdhwa Marga* or *Adho Marga*. If the *Doshas* are vitiated excessively, they must be expelled out through the nearest external opening with the help of *Panchakarmas*. It clears the *Srotas*, purifies the *Dhatus*, and produces *Vatanulomatha*.

Dalhana opines that, for *Sodhana* purpose *Vamana* can be done. *Virechana* should be avoided as it reduces *Pitta* which in turn decreases *Arthava*. *Vamana* removes the *Soumya dhatus* in our body leading to a relative increase of *Agneya* constituents of the body and thus causing an increase in *Arthava*. According to *Chakrapani*, *Sodhana* procedures purify the *Srothases*. *Vamana* and *Virechana* are helpful to clear the *Urdhva* and *Adha Srothases* respectively. Hence both measures can be adopted, giving due consideration to the dosages of drugs used for *Sodhana* and the fitness of the women.

Agneya dravyas

These are *Vata Kapha hara* and *Pithakara* in nature. In *Arthavakshaya, Tikshna Ushna gunas* of *Agneya dravyas* are beneficial. It will be helpful in removing *Ama* and *Srothorodha*. It may enhance the *Agni* even at the *Dhatu* level.

Swayoni vardhana dravyas

Swayoni Vardhana means those measures which are useful for the growth of the *Dhatus* and increase factors favoring menstruation. The drugs *Raktha Vardhaka* or *Arthava Janaka* can be used here. Fruits, vegetables, and drinks having *Katu, Amla, Lavana, Ushna, Vidahi*, and *Guru Gunas* are enlisted by *Bhavaprakasa* in *Arthavakshaya*.

Nidana parivarjanam

For curing the diseases and avoiding their recurrence, avoidance of the causative factors is essential.

Pathya Aharas

Fish, *Kulatha, Amla dravyas, Thila, Masha, Sura, Gomutra, Udasvith* (buttermilk mixed with half water), *Dadhi*, and *Suktha* are to be used as diet and drinks^[17]. According to *Susrutha, Sali anna, Yavam, Madyam*, and *Mamsam* which are capable of increasing *Pitha* are beneficial in *Arthava dushti*.

Pathya Viharas

Moderate exercises, aerobics, etc. can be done along with the medicines in all cases of PCOS.

Behavioral therapy has an important role in PCOS. This includes weight reduction, diet modification, and exercises. The role of behavioral treatment has been systematically described in our classics in various contexts like *Prameha*, and *Sthoulya*.

DISCUSSION

In *Ayurvedic* classics, we cannot find an exact correlation of this disease. As it is a syndrome exact correlation is difficult, but the clinical symptoms of the disease can be included under the following headings. The metabolic symptoms like obesity, Insulin resistance can be included under *Sthoulya* and *Prameha*. Hyperandrogenic symptoms such as acne and baldness can be correlated with *Mukhadooshika* and *Khalathi* respectively. Anovulation resulting in amenorrhea or irregular cycles is described under the disease *Vandhya* and *Pushpagni jaataharini* by *Acharya Kasyapa*. Clinical symptoms like menstrual irregularities (amenorrhea), and bloating of the abdomen can be seen in *Raktha gulma*. Also, we can adapt the treatment principles of *Gulma* to effectively manage these symptoms.

Prameha is a condition caused by the impairment of *Kapha dosha* and *Jalamahabhutha*. *Kapha dosha* vitiation mainly hampers fat or lipid metabolism leading to the formation of *Kleda*. *Charakacharya* had explained that *Santharpana najanya Madhumeha* is caused by an excessive increase in *Kapha*, *Pitha*, *Medus*, and *Mamsa* in those who take an excess heavily unctuous food, newly harvested crops, excessive sleep, and such sedentary habits, those who have given off physical and mental activities and also do not resort to timely purification of the body. This led to *Agnivaishamyatha* and *Amaroopasleshma uthpathi (Bahudrava sleshma)*. The excess *Kleda* brings *Saithilyatha* into surrounding tissues. The excess *Kapha* and *Kleda* formation might be associated with receptor insensitivity and cellular signal failure because of the *Avarana* in the path of *Vatha*. Regarding long-term health risks associated with PCOS, the basic underlying pathology appears to be insulin resistance.

In *Pushpaghni jathaharini*, *Acharya Kashyapa* described the patient will be having regular but futile cycles and corpulent cheeks, and excessive hair. Excessive hair growth is clear from the description itself which can be considered a result of elevated levels of androgen. So from the description of *Pushpaghni*, it can be considered a hyper androgenic condition resulting in anovulation and subfertility. *Pushpaghni* is one among the *Sadhya jathaharini*. Here as management protocol, *Acharya* mentions *Daivavyapasraya Chikitsa* which includes chanting of *Mantras*, *Homa*, and *Mani Dharana*, etc, which brings the tranquillity of mind, and also *Upavasa*, which breaks down the *Samprapti* of the disease provoked

due to the *Aharaja nidana*. The *Nidana* of *Jathaharini* indicates the physiological and behavioral conduct of women leading to abnormalities in the body.

Nashtartha explained by *Acharya Susrutha* mentions that due to *Vatha Kapha Avarana*, *Arthavanasha* occurs in females. This can be correlated with amenorrhea associated with PCOS. In *Vandhya Yonivyapath*, *Arthava* is destroyed. This can be considered secondary amenorrhea or anovulation which ultimately causes the inability to conceive a child.

The conditions like amenorrhea and mild hyperprolactinemia in PCOS show some similarities with *Rakthagulma*. We can adapt the treatment principles of *Gulma* in different aspects for managing the clinical symptoms associated with PCOS, especially for amenorrhea and irregular menstrual cycles. *Thridoshas* play an important and distinctive role in the proper manifestation of *Rituchakra*, including the processes like ovulation and menstruation. Normal functions of the HPO axis also depend on these *Doshas*. *Rasa dhatu* is one of the prime factors which decides the normal formation of *Arthava*. For the proper formation of *Rasa Dhatu*, *Ahara* which is properly administered, its conversion to *Anna rasa*, and transportation with the help of *Vyana Vatha* in *clear channels* are essential. *Manasika bhavas* also have an important role in *Rasa Dhatu Sudhi*. The above-mentioned *Nidanas* which are almost similar in characters (*Nidanas of Santharpanotha vikaras, Rasadi dhatu & Srothodushti, etc*) lead to impaired function of *Agni* at various levels especially of *jatharagni* and *dhatvagnis*. This leads to the formation of *Asamyak Pachita Aahara Rasa* (partly metabolized substances) in the body. Both vitiated *Kapha* and *Saama rasa* increase the *Snigdhamsa* of the body and cause *Srotorodha* finally leading to *Vatavaigunya*. Mental factors like stress, anxiety, depression, etc can cause vitiation of *Vatha*. Vitiated *Vatha* and *Kapha* cause *Avarana* of *Artavavaha Srotas* leading to *Arthavanaasha* and *Vandhyatvam*.

For the proper functioning of *Arthava*, the *Agneya property* of *Pitta* is essential. The increased unctuousness of the body affects this property of *Pitha* and hence *Arthava*. This leads to irregular menstruation and impaired ovulation. As mentioned earlier, impaired function of *Dhatwagni* leads to diminution of *Dhatu*s and an increase in *Dhatumalas*. According to *Sarngadhara*, *Mukha snigdhatu* and *Youvana Pitaka* are the mala of *Sukradhatu*. *Kapha*, *Vatha*, *Raktha*, etc. are vitiated by *Swanidanas* Leading to *Rakthadidhatwagni* and *Sukradhathwagnimandya*, through which *Mala* of *Sukra dhatu* appears as *Vakthra snigdhatwam* and *Mukhadushika*.

Prabha, *Varnam*, *Mardavam*, etc. are attributed by *Pitha*. Relative diminution in *Pitha* affects *Prabha*

and Varnam causing Karshnyam. Thus, Karshnyam or acanthosis can be attributed to Vatha vrudhi and Pitha kshayam as seen in PCOS.

CONCLUSION

PCOS is not a completely curable disease, but the symptoms can be alleviated by medications and lifestyle modifications. No positive correlation of PCOS is found in Ayurvedic classical texts. The various conditions associated with PCOS show similarities with *Gulma*, *Prameha*, *Sthoulya*, etc. *Pushpagani Jaataharini* mentioned in *Kasyapa Samhita* bears some similarities with clinical presentations of this disease. *Nasarthava*, *Arthavakshaya*, and *Vandhya Yonivyapath* mentioned In *Susrutha Samhita* can also be taken into account. *Avarana* of *Artavavaha Srotas* due to vitiated *Vatha* and *Kapha* leading to *Arthavanaasha* and *Vandhyatvam* can be considered as the basic underlying pathology.

REFERENCES

1. Tewari PV. Kasyapasamhitha. Varanasi: Chaukambha viswabharathi; 2008. p.547.
2. Alpesh Goyal. Idiopathic hyperprolactinemia presents as Polycystic ovarian syndrome in identical twin sisters, Cureus.2018 July 1910(7): e3004 p.5 Available from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6145756/#!po=1.31579>
3. Sharma R K, Bhagawan Dash. Charaka Samhita Sareera Nidana sthana. Varanasi: Chaukamba Sanskrit series; 2013. p.54.
4. Bhargava A, Guthrie JF (2002). "Unhealthy eating habits, physical exercise, and macronutrient intakes are predictors of anthropometric indicators in the Women's Health Trial: Feasibility Study in Minority Populations". British Journal of Nutrition (Randomized Controlled Trial). PMID 12493094.doi:10.1079/BJN2002739
5. Sharma R K, Bhagawan Dash. Charaka samhita Suthraa sthana. Varanasi: Chaukamba Sanskrit series; 2013. p.374.
6. Sreekanta murthy KR. Susrutha samhitha Sareera sthanasthana. Varanasi: Chaukambha viswabharathi oriental; 2017.p.22.
7. Sreekanta murthy KR. Susrutha samhitha Suthra sthana. Varanasi: Chaukambha viswabharathi oriental; 2017.p.101.
8. Sreekanta murthy KR. Illustrated Susrutha samhitha Uthara Sthana. Varanasi Chaukambha viswabharathi oriental; 2012.p.171.
9. Srikantha Murthy KR. Ashtanga Hridaya Chikithsa sthana. Varanasi: Chaukhamba krishnadas Academy; 2017; p.320.
10. Sreekanta murthy KR. Susrutha Samhitha Sareera sthana. Varanasi: Chaukamba orientalia; 2017.p-22.
11. Danica Kochman. Treating and managing polycystic ovarian syndrome with Ayurveda, 2019, P.10, Available from <http://www.ayurveda college.com/sites/ayurvedacollege.com/files/articles/PolycysticOvarianSyndrome-DanicaKochman.pdf>
12. Danica Kochman. Treating and managing polycystic ovarian syndrome with Ayurveda, 2019, P.10.
13. Sharma R K, Bhagawan Dash. Charaka samhita Suthra Sthana. Varanasi: Chaukamba Sanskrit series; 2018. P.575-578.
14. Sreekanta murthy KR, Ashtanga samgraham. Varanasi: Chaukamba orientalia; 2012.p-4.
15. Sreekanta murthy KR. Illustrated Susrutha samhitha Utharathantra. Varanasi: Chaukambha viswabharathi oriental; 2014.p.22.
16. Sreekanta murthy KR. Illustrated Susrutha samhitha, Varanasi: Chaukambha viswabharathi oriental; 2012.p.7.
17. Sreekanta murthy KR. Susrutha samhitha Suthra Sthana. Varanasi: Chaukambha viswabharathi oriental; 2017.p.100.
18. Sreekanta murthy KR. Susrutha samhitha Sareera Sthana. Varanasi: Chaukambha viswabharathi oriental ; 2017.p-22.

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