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ROLE OF AYURVEDIC LIFE STYLE MODIFICATION IN THE MANEGMENT OF PCOS – A CONCEPTUAL STUDY

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ABSTRACT.

PCOS is most common metabolic endocrinopathy in women of reproductive age. Approximately around 8 to 13% of women develop hormonal disorder called PCOS. Due to sedentary lifestyle leads to weight gain, insulin resistance causes hormonal irregularities like PCOS, Hyperandrogenism which finally affect the fertility rate of women population. Ayurveda mentions PCOS as kapha disorder where vitiation of vata plays significant role towards the disease samprapti. kapha and medas which does Agni dushti and margavarana to the apanavayu leads sthoulya, anartava , alpartava, and asrikdosha which ultimately hampers the female reproduction system. Role of Ayurvedic lifestyle modifications like Dinacharya , Rutucharya , Sadvritta palana pathya – Apathya in management of PCOS. Majority of women with PCOS manifest multiple metabolic features like obesity , insulin resistence , hyperlipidemia , hyperadrogenism and infertility . it can be correlated with kapha – vata pradhana arthava dushti causes vandyatva . As the main samprapti is started by sedentary life style, the ayurvedic measures like waking up in bhramhi muhurta, nitya vyayama, snana and udwartana etc which are mainly kapha medahara and sadvritta palana (~good conduct) leads to mental well being has role in maintaining HPO-axis directly which controls the ovarian function. Hence by proper following of dinacharya, rutucharya and sadvritta palana have role in Doshasamyata, Dhatusamyata and mainly Agni samyata. By this it corrects metabolic activity of women body which is the prime nidana for hormonal imbalance. Polycystic ovary syndrome is a reversible metabolic condition by ayurvedic life style modification that makes a significant contribution to global epidemic of lifestyle related diseases.

Keywords-PCOS, Artavakshaya, Artavadushti, Dinacharya, Rutucharya,

INTRODUCTION

Polycystic Ovarian Syndrome (PCOS) or disease is a systemic endocrine and metabolic disorder affecting approximately 8 to 13%[1] of women of reproductive age. The Indian medical science Ayurveda focuses towards the restoration of health & well being, in this connection since healthy women not only contributes towards her

family but also involved in the growth and development of society and nation. PCOS is emerging health problem of current scenario mainly seen in women of reproductive age group, a condition that has cysts on the ovaries which prevent the ovaries from performing normal function. Symptoms of PCOS include amenorrhea, infrequent menstruation, irregular bleeding, infrequent or no ovulation, multiple immature follicles, increased levels of male hormones, male pattern baldness or thinning hair, excess facial and body hair growth, acne, oily skin or dandruff, dark coloured patches on skin specially on neck, groin, underarms, chronic pelvic pain, increased weight or obesity, diabetes, lipid abnormalities and high blood pressure.

AYURVEDIC PERSPETIVE OF PCOS

Reproductive system in Ayurvedic classics represented by Aartavavaha Srotas by which means the channel which supplies, nourishes and enables functional action of carrying ovum and excrete the ovum in case of fertilization do not achieved. Ovum is represented by word Artava. In Ayurvedic classics PCOS can be considered due to Kapha Predominant Tridoshas. Normal function of Tridoshas leads to regular reproductive function.

Vata is responsible for maturation and movement of Ovum during ovarian cycle and excretion of menstrual blood from uterine cavity through vagina if fertilization not been achieved.

Pitta is related to transformation, metabolism and heat. Hormonal influence in the different stages of menstrual cycle and transformation of follicles reflects nature and natural action of Pitta.

Kapha with its guru shita snigda qualities nourish the development of tissues. Follicular nourishment and growth in ovarian cycle express influence of Kapha in menstrual cycle.

PCOS can be understood with the concept of Aavarana (~blockage). PCOS is due to Kapha blocking Vata and Pitta, hence the basic feature of Vata- Movement and Pitta - Transformation process are supressed. Kapha affects first to the Agni - Metabolic process of the body including digestive fire Jatharagni and metabolic aspect of 7 tissues-Dhatvagni. Each Dhatvagni is responsible for the formation and nourishment of that particular tissue Dhatu. In PCOS Dhatus that affected are Rasa Dhatu- Lymph and Plasma, Meda Dhatu-Adipose tissue and Artava Dhatu - Ovum and Menstrual blood. Due to factors that aggravate Kapha, it suppress digestive fire Jatharagni. Indigested food produces toxins- Ama. Aggravated Kapha mixed with Ama moves out of GI tract and enters channel of tissues- Srotas and hampers normal function by blocking them by srotosanga. Due to Srotosanga Vata is blocked and cannot move freely into the Srotas as well in Artava Vaha Srotas henceghg hampers ovulation and menstruation. Blockage of Vata leads to Pitta blockage which hampers regular metabolism, hormonal influence and transformation of follicles into ovaries.[2,3]

DINACHARYA AN ANSWER TO LIFESTYLE DISSORDER LIKE PCOS

BRAMHA MUHURTA UTTISTATHE

ब्राह्मे मुहूर्त उत्तिष्ठेत्स्वस्थो रक्षार्थमायुषः। (A.H.SU 2/1)[4]

In ayurveda the time to wake up is told as bramha muhurta which is nearly 48 minutes before the sunrise. Scientist have discovered that certain brain structures and chemicals producthe states of sleeping and waking

MEASURING THE TIMING OF MAMMALS CIRCADIAN RYTHMS ARE

1.Melatonin secretion by the pineal gland 2.Body core temperature 3.Plasma level of cortisol

After bramha muhurta kapha kala begins,kapha along with tama blocks the srotas.It is the time of highest peak of hormonal actions like cortisol, FSH,LH.Cortisol is the byproduct of cholesterol when secreted abnormally supresses the level of LH, ESTRADIOL production and it is indirectly affected the menstrual cycle.so waking up bramha muhurta prevents the most of the endocrinal diseases like PCOS[5]

ABHYANGA (OIL MASSAGE)

अभ्यङ्गमाचरेन्नित्यं, स जरा श्रमवातहा।(A.H.SU 2/8)[6]

Abhyanga (~oil massage) over abdomen and reproductive organs regulates vata dosha and controls pitta aggravation. Abhyanga contributes to gradual restoration of hormonal imbalance. It also increases the body's blood circulation and improves blood flow to the ovary and stimulates ovulation and menstruation. It resolves PCOS complications like insulin resistance, obesity, hormonal imbalance, stress and anxiety issues by strengthening reproductive system and endocrine system

NASYA(NASAL INSTILLATION)

द्वारम् हि शिरसो नासा।(CHA.SI.9/88)[7]

Mode of action of nasya karma enter the vital sringataka marma and from there they disperse in to various channels known as srotas. It's known that the peripheral olfactory nerves are linked to the limbic system of the brain, including the hypothalamus. This limbic system plays a crucial role in various functions, including human behaviour and the regulation of hormone secret Stimulating the olfactory nerves experimentally has been shown to activate specific cells in the hypothalamus and amygdaloid complex. This entire process is believed to have a role in stimulating the Hypothalamus-Pituitary-Ovarian (H- P-O) axis, which in turn stimulates hypothalamus leading to stimulation of GnRH neurons. This may regularize GnRH pulsatile secretion which in turn triggers proper gonadotrophin secretion leading to Ovulation. When the HPO axis is not functioning correctly, it can hinder the release of mature eggs from the ovaries causing ovulation.

UDWARTANA (POWDER MASSAGE)

उद्वर्तनं कफहरं मेदसः प्रविलायनम् । स्थिरीकरणमङ्गानां त्वक्प्रसादकरं परम् (A.H SU.2/15)[8]

Dry (powder) massaging the entire body such as udwartanam which help cleanse the lymphatic system and removes kapha toxins from the body. The therapy increases blood circulation, skin detoxification and boost metabolism thus helping in weight loss as obesity is one of the cause in PCOS

VYAYAMA /YOGA

The science of yoga/vyayama works at root cause of PCOS i.e. stress and Obesity. Yoga is much deeper than just the physical body level.Yoga helps to release deeply stored stress in the system, which can help improve PCOS symptoms. Yoga is a psycho-somatic spiritual discipline for achieving union and harmony between our mind, body and soul by practicing specific techniques such as Yoga postures (Asanas), Breathing techniques (Pranayam) and Meditation (Dhyana) to attain highest level of consciousness.An active yoga practice increases heart rate, providing a cardiovascular workout and leading to weight loss. Aasanas and pranayama promotes hormonal balance and deep relaxation, helping to bring the adrenal and cortisol levels of stressed-out PCOS minds and bodies in check.

Yoga poses (Asanas) designed for PCOS help in opening up pelvic area and promote relaxations.

1. **Suryanamshkar** (Sun salutation) It is an ancient yogic method to worship sun and consists of series of postures (Asanas) with breathing pattern. It balances the whole endocrinal system by direct massaging of glands and increasing blood flow to organ thus regularizes the menstrual cycle. Sun salutation significantly decreases blood sugar level, increases insulin sensitivity, improves lipid profile and results in weight reduction,improved BMI, low waist hip ratio.[9]

2. **Supta baddha konasan (Reclining Butterfly Pose)**Stimulates abdominal and pelvic organs like ovaries, urinary bladder, stretches inner thighs and groin which helps in relieving symptoms of stress and menstrual irregularities.[10]

3. **Halasana** (Plough pose) It improves cardiovascular health and menstrual irregularities by reducing belly fat.

4. **Dhanurasan (Bow pose)** It is the best pose to reduce body fat and weight as it stretches the abdominal muscle to fullest of their strength.

5. **Bhujangasana (Cobra pose)** This asana exerts pressure over the abdomen and boosts the ovarian functions.

6. **Chakki chalanasan (Moving wheel pose)** It helps to modify the endocrine glandular functions thus enhances efficiency of hormonal secretions.

7. **Padmasan (Lotus pose)** This asana stretches the pelvis region

8. **Naukasan (Boat pose)** This asana exerts pressure over the abdomen and corrects the functions of organs present in and around the pressurized area.

NIDRA(SLEEP)

PCOS patient suffers from sleeping disorders such as insomnia, obstructive sleep apnea (OSA) that leads to lethargy, daytime sleep and metabolic dysfunction. Poor quality sleep in PCOS patients is associated with depression, infertility, increased insulin resistance, obesity, cardiovascular diseases.

Neurohormones like Stress hormones and melatonin are involved in circadian pattern.Melatonin,is important role in the regulation of sleep-wake cycle, in reproductive ovarian function.Disturbed levels may affect ovarian function, hormonal balance, follicular growth, oocyte maturation, ovulation, and oocyte quality.

PCOS women with poor sleep quality has an increased melatonin levels and increased oxidative stress if untreated. Hence for regulation of HPO & HPA axis sleep modification could be used as a first line of treatment.

ASTA VIDHI AHARA VISHESHAYATANA IMPORTANCE IN PCOS

Modern dietary factors play an important role in manifestation of pcos. Ahara is the part of our daily routine along with the quality quantity and taste of food. only those diets must be consumed whose colour,smell,touch and taste are pleasing to the senses. If these diets are taken according to rules, then they actually represent the life of human being. There are 8[11] factors of the method of dieting.

1.Prakruti-Nature Of Food

2.Karan-Processing Of Food

3.Samyoga-Combination Of Food

4.Rashi-Quantity Of Food

5.Desha-Habitat Of Food

6.Kala-Time And Seasonal Variation

7.Upayoga Samsta-Rules For Dieting

8.Upayokta-The Person Who Consumes The Food

AharaVidhiVisheshayatana explains the various dietary habits. It helps to know about choosing appropriate food, a combination of food,cookig method,quality,and quantity of food.Ahara Vidhi Visheshayatana is one of the most beneficial for achieving/keeps the agni dosha dhatu mala in samavasta and prevents lifestyle disorders like PCOS.

RITUCHARYA IN PCOS

Ritu the season, charya(regimen) regarding diet and behaviour to climatize seasonal enforcement easily without altering body homeostasis.

The prime principle of ayurvedic system of medicine is preventive aspect,can be achieved by the change in diet and practices in response to change in climatic condition

Ritucharya because it affects deha as well as mana by bringing homeostasis in tridosha saptadhatu trimala and agni so main causative factors in pcod is unhealthy lifestyle mithyaahara and vihara due to this vata kapha vitiation, impairment in agni and rasa rakta mamsa meda artavaha srotas also get vitiates. thats why our acharyas set examples stand as a hint to decide dos and donts in the regimen rutucharya.as one of the example i.e ritushodhana(**VAMANA IN VASANTA RITU**)[12]has best management and positive results in pcos.

ACHARA RASAYANA IN PCOS

Achara rasayana is a code of good socio-behavioural conduct ,such has worship to gods(improves personality i.e satwa),respect to elders,speaking truth,avoiding anger, alchol, and excessive sex indulgence,practicing mantra japa,balanced sleep,daily taking nutritious elements of diet etc.[13]

Adopting these meausures,a person can free from emotional disturbances and keeps less stressful life and thus prevents the release of free radicals and proves psychoneuroimmunity.that implies nervous activity in the limbic system,which turn activity of hypothalamous, this may keeps H-P-O axis functions normally and also menstrual cycle(Endocrine system).

If not exogenous stressors can have direct impact upon H-P-A axis this leads to excessive liberation of corticosteroids and metabolic modification takes place this in terms affects endocrine system (H-P-O axis) leads to ovarian dysfunction and abnormalities in menstrual cycle.

CONCLUSION

PCOS is a highly complex endocrine disorder. It is a leading cause of infertility, menstrual disturbance and is associated with obesity, hirsutism and chronic anovulation. Obesity and hormonal imbalance is the main cause and symptom. It can be prevented by following dincharya and ritucharya and can be reduced by pathya aahar, vihar, aushadh and restriction of apathya aahar

Women with PCOS have profound insulin resistance, obesity and increased level of androgens.Weight reduction is main preventive and therapeutic potential to combat with this catastrophe which can be achieved by incorporating lifestyle modifications.

Ayurveda dietary regime (pathya ahara), dinacharya, ritucharya, yoga, achara rasayana etc mentioned in ayurveda literature are main key which keeps individual healthy and regulates functions of endocrine system. all these lifestyle modication increases the fertility rate and improve the quality of lifestyle in patients of PCOS. So this paper reviews lifestyle modification in the management of PCOS

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