



ACQUIESCENCE OF AURVEDIC EXTRACT BASED PATENT MEDICINES IN ARTAVAKSHYA VISA-VIS (PSOS)

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GADAG 582103**ABSTRACT**

Women are one of the nature's most wonderful and complex creations. There are many physiological changes which take place in women's body which are markedly seen in the reproductive life. Menstrual cycle is such a unique phenomenon in the body which includes dramatically monthly change in the hormones, which ends finally with the shedding of endometrium. Menstrual cycle is a physiological process controlled by hypothalamic pituitary ovarian axis and their associated hormones which are produced as a result of rhythmic and cyclic changes in the reproductive organs. These are greatly influenced by present day life style, food habits, and increased stress and strain leading to various types of menstrual disorders. Among all the menstrual disorders, artavakshaya can be compared to oligo-hypomenorrhoea. It is seen in approximately 50% of patients. All acharyas have opined normal duration of artavasrava is between 3-7 days and the quantity is naatibahu and naatyalpa. Artavakshaya is a disease if left untreated leads to infertility. As per Modern medical science hormonal treatment is considered as the first line of treatment, but it has its own limitations and cannot be used for a long period due to its side effects.

KEYWORDS : Artavakshaya, Menstrual cycle, Agneyadravyas, Oligo-hypo-menorrhea PCOS.**INTRODUCTION**

According to all *Ayurvedic* classics *Artava* is *Upadhatu of Rasa*¹.

Ratio of Menstrual disorder² is raising in gynecological practice which precursor of infertility and other problems, so it requires more attention. 'Artavakshaya' can be correlated with Oligomenorrhoea³, Hypomenorrhoea⁴ and upto some extent Secondary amenorrhoea⁵.

The concept of menstruation physiology and its pathologies are well defined in Ayurveda as Artavanirmana and Artavavyapad respectively. The condition of oligomenorrhoea comes under the pathology of Artavakshaya in Ayurveda. The symptoms of Artavakshaya are parallel to oligomenorrhoea i.e. yathochitkaleadarshanam, alpa, yonivedana are indicated i.e. increased interval between two menstrual cycles, decreased amount of menstrual blood and pain respectively.

ARTAVAKSHYA: Brahatrayees have explained artavakshaya by different names like arajasaka, anartava, rajahksheenata vilambita rajodarshana, alpaartava, kashtartava, rajakriccharata etc. *Artavakshaya: Artavakshaya yathochit kale adarshanam yonivedana cha.*⁶ (*Su.su.15/12*)

Artavakshaya is described as deficiency or loss of artava. Artava does not appear in time or is delayed, is scanty and does not last for 3 days.

Menstruation is visible manifestation of cyclic physiologic uterine bleeding due to shedding of the endometrium⁷

Polycystic Ovarian Syndrome is relatively common endocrine disorder in women of reproductive age group.

Prevalence – Globally an estimated 250 million adults are now obese and many more are overweight⁸.

The prevalence of PCOS is variable due to lack of a universal definition⁹

Incidence of this condition is growing among young women of reproductive age ranging between 5% -10% leading to sub fertility around 70% of women.

Most Ayurvedia samhitas do not mentioned a disease or syndrome directly similar to PCOS, but there were so many closely related conditions such as; Artavakshaya, Kshinartavaya, Kshinartava dushti, Kapaja granthi, and Vandya yoni Vyapad. Pushpaghni revati a disease mentioned in Kashyapa Samhita is mostly related with PCOS. Ayurveda terms related with PCOS

Artavakshaya: AatRv[y]e ywaieictkaldzRnsmLpta yaeinvedna c, [10] Decrease of Artava gives rise to non-appearance at the appropriate time or scanty appearance and pain in the vagina. One of cardinal sign of PCOS is Oligomenorrhea which is infrequent or/and very light

menstruation. Considering Oligomenorrheic condition it can be correlated with Artavakshaya, Kshinartavaya and Kshinartava dusti. Vandya Yoni Vyapad: [11] In Vandya Yoni the woman does not menstruate at all. Since PCOS has Amenorrhea and Un-ovulatory condition it can be associated with Vandya Yoni-Vyapad.

Granthi/Cysts: Vata and other dosas associated with Kapha, getting aggravated, vitiate the muscle, blood & fat tissues and produce a round, bulged and hard swelling which is called as Granthi [12] Ovarian Cysts in PCOS are similar to Kaphaja Granthi.

Pushpaghni revati [13] That woman who observes her fruitless menstruation in appropriate time, has corpulent and hairy cheeks, she is known as Pushpaghni revati. According to Rotterdam criteria of PCOS it can be correlated with Pushpaghni revati a disease mentioned in Kashyapa Samhitha. .

Causes of Polycystic ovary syndrome The cause of polycystic ovary syndrome is unknown, but studies suggest a strong genetic component that is affected by gestational environment, lifestyle factors, or both^[14].

Ayurveda considers involvement of four basic etiological factors i.e. unhealthy lifestyle, menstrual disorders, genetic facts and cryptogenic factors in the establishment of female genital disorders (Yoni vyapad)^[15]

And one among of them is Pradustaartava which includes the both Bijarupa and Rajorupaartava. According to Kashyapa kalpasthana, due to Ushna veerya annapana, Artava and Beeja becomes vitiated, the Agni gets decreased, Rasa is not formed and Kapha and Pitta get accumulated^[16]

CAUSES;

- Familial premature ovarian failure
- Environmental factors toxic exposures
- Surgery for endometriosis neoplasm and infections
- Chemo and radio therapy
- Changed lifestyle

CLINICAL FEATURES;**RELATED TO MENSTRUATION**

- Infrequent cycles
- Severe oligomenorrhea
- dysmenorrhoea
- pelvic pain and infertility

GENERALISED:

- Obesity (abdominal)
- Acne (pidika)
- Acanthosis nigraicans (vivarnata – neck , groin , underarms)
- Male pattern baldness (khalithya – thinning hair)
- Facial and body hair growth (atilomata)

- Oily skin/ dandruff(twak snigdhatta)
- High blood pressure (adhikaraktha chapa)
- Lipid abnormalities and rakhtagatamedavridhi

PATHOPHYSIOLOGY:

Modern Pathogenesis of PCOS The pathogenesis of PCOS is not clearly understood.

According to allopathic medicine it can be discussed under following four headings.

1. Abnormality of Hypothalamus Pituitary Ovarian (HPO) axis
2. Hyperinsulinemia arising from receptor dysfunction.
3. Hyper-androgenemia (Adrenal/Ovarian)
4. Genetic inheritance. Increased pulse frequency of GnRH leads to increased pulse frequency of LH. The LH: FSH ratio is increased. Due to genetic factor and insulin receptors dysfunction (Excessive serine phosphorylation of the insulin receptor) cells resist insulin and hyperinsulinemia condition arises.

In vitro and in vivo evidence offer support that high LH and hyperinsulinemia work synergistically, causing ovarian growth, androgen production, and ovarian cyst formation.

Obesity, which is seen in 50% to 65% of PCOS patients, may increase the insulin resistance and hyperinsulinemia [17].

Abnormal regulation of the androgen forming enzyme (P450 C 17) is thought to be the main cause for excess production of androgens from the ovaries and adrenals. The principal sources of androgens are ovary, adrenal and systemic metabolic alteration.

Pathogenesis of Baldness and Hirsutism in PCOS In Scalp, Testosterone convert to Dihydrotestosterone (DHT) by 5 alpha reductase and cause shrinkage of hair follicles and impact growth of hair. It is not the amount of testosterone or DHT that causes baldness, it is the cause of individual's sensitivity of hair follicles, which determined by genetics. If hair follicle receptors are particularly sensitive, they are more easily triggered by even small amount of DHT. Age, stress and other factors also can influence hair loss. Hair in different locations on the body can react differently to hormonal changes. Although body hair is increased by androgens while scalp hair is decreased. Excess androgen levels lead to increased terminal hair growth in most androgen-sensitive sites (e.g., upper lip, chin, chest, back, and upper abdominal area).

Pathogenesis of Acne in PCOS Androgens increase sebum secretion, resulting in increased oiliness of the skin and acne..

Pathogenesis of Acanthosis nigricans and skin tags in PCOS High androgen levels and high levels of insulin can cause darkening of the skin around the neck and other crease areas, a condition called acanthosis nigricans, often accompanied by skin tags.

Ayurveda Pathogenesis of PCOS

In Ayurveda samhitas, Samprapti Of Artavakshaya the Vata dosha indicates both Gati and Gandhana [18] (motor and sensory). According to Caraka Samhita, Vata controls the normal function of body. Hence, hormonal regulation can be co-related with the function of Vata. When considering menstruation Vata stands for proliferation, division of cells and rupture of the follicle etc[19]. Apana vata is responsible for the regulation of menstruation and also for the expulsion of ovum [20]. But the voluntary act of intercourse may be under the control of Vyana vata [21].

According to Ayurveda transformation/conversation is the function of Pitta and this conversation is possible by Pachana through Agni only [22].

Pitta convert androgens to estrogen in Graafian follicle and also done the maturity of follicle by its function of Paaka Karma with the help of Samana vata. Samana vata takes part in the metabolic activities inside the body and has a stimulating action on the Agni (digestive power) [23].

Growth (Upachaya) is a function of Kapha. Kapha stands as a building and nutritive factor [24]. It binds all the cells together and gives nutrition for growth and development of the cells with the help of Vyana vata. Vyana vata makes Rasa to get forcefully ejected out of the

heart and makes it circulate throughout the body [25].

Maintenance of homeostasis in the living human beings also done by Samana and Vyana vata. When considering PCOS, Follicle maturity problems, anovulation and hormonal imbalances (Ambuvishamata) arises due to decline of normal functions of Vata and Pitta. On the other hand decline of Pitta function was due to Mandagni (vitiation of Jataragni and Datvagni paaka). It distressed normal dhatu formation and Ambuvishamata arises. Mandagni condition is due to aggravated Kapha [26].

Hence PCOS is a Kapha aggravated, Pitta and Vata decline condition. Ayurveda believes Panchamaha bhuta concepts as basic principle to understand physiology as well as pathology. Tridosha theory is simplified from the same. According Ayurveda, collaborated Vayu and Akasha are considered as Vata. Agni is considered as Pitta and Prtvi along with Jala is considered as Kapha[27].

Vata dosha is lightest among all, Pitta is lighter and Kapha is heavy by nature. Vata possess Chala guna while Pitta possesses Sara guna and Kapha possesses Sthira guna [28].

As Kapha is heavier compared to other two, it naturally tend to obstruct Vata and Pitta [29].

Therefore it is not only the Vata which gets obstructed and results in disease. Pitta also may get obstructed by Kapha and produced disorders like Shakhshrita kamala [30].

When considering pathogenesis of several conditions in Ayurveda which could be correlated with PCOS can be used to prove that PCOS as an Avaranajanya vyadhi. While going through the classics, the probable causes of Artavakshaya are Margavarodha and the Dhatu kshaya. In Margavarodhajanya artavakshaya, involvement of Doshas were Vata and Kapha. According to Charaka the vitiation of Artavavaha srotas occurs by means of Sanga. This Vata avarodha (Avarana) is caused by Kapha.

When the channel becomes obstructed by the dosas, then menstrual flow ceases.[31]

When considering Samprapthi of Anartava/ Rakta gulma, Vagbhata also described about Dosha obstruction/Avarana as following. If menstrual blood accumulate inside itself, due to obstruction of its passage by Vata or Kapha, it is should be treated with measures with increase Pitta.[32]

Kashyapa also mentioned about Avarana when describing Puspaghni revati.[33]

When a peculiar dosha is obstructed by another dosha it will result in aggravated symptoms of that dosha (Avarakam). But the dosha (Avrutam) which gets obstructed by the other shows decline in their normal functions. As an example in Kaphavritta vata, the symptom of Kaphavidhi as well as deterioration of the symptoms of Vata is observed. This is because the Vata is not able to perform its function due to the Avarana caused to it. According to signs and symptoms of PCOS it could be clearly understood that functions of Vata and Pitta doshas decline therefore normal functions while Kapha dosha aggravated. Therefore it can be concluded as aggravated Kapha obstruct the Vata and Pitta dosha and PCOS manifests.

Samprapthighataka

Dosha: Pathologic Components Vata (Apana, Samana and Vyana) Pitta (Pachaka) Kapha (Kledaka)

Dushya: Rasa dhatu, Rakta dhatu, Medo dhatu, Asti dhatu Artava Upadhatu

Agni: Jataragni and Dhatvagni

Srotas: Rasavaha, Raktavaha, Medovaha Astivaha and Artavavaha srotas

Srotodushti: Sanga and Shiragranthi
Udbhavasthana: Amashaya
Adishtana: Garbhashaya/Dimbhakosha
Sancharasthana: Sarwa shareera
Vyakta Sthana: Yoni

- Path physiology is based on deregulation of the metabolic pathway of ovarian steroid genesis
- The media-- this metabolic pathway is LDL cholesterol
- Theca cells under the influence of LH and by the action of enzyme cytochrome P-40-17 alpha and amplified by IGF -1 (insulin like growth factors) converts LDL C into androstenedione
- In normal ovary the granulosa cells under the influence of FSH with the help of enzyme P-450 aromatase convert the androstenedione into estrogens
- In PCOS under excessive LH influence there occurs greater production of androgens
- Obstruction / sanga in the pelvic cavity (apanapadesha) causing hinderance in the flow of vata, this in turn leads to accumulation / sanchaya of kapha and pitta

DOSHIK INVOLVEMENT

- Pitta ,kapha, medas ,ambu /rasa, arthavadhatu and rasaraktha artava strotas Therefore PCOS can also be described with same involvement of doshdhatu & upadhatu
- Kaphaja lakshana – like increased weight , sub fertility , hirutism ,diabetes and coldness
- Pittaja lakshana – hair loss , acne , painful menses , clots and cardiac problems
- Vataja lakshana – painful menses , scanty or less menstrual blood and severe menstrual irregularity

SAMPRAPTHI GHATAKAS:

- Dosh : vata pradhana tri dhosha
- Dushya : rasa, raktha, mamsa, medas ,ambu, artava
- Agni : jataragni, dhatuvagni (artava agni)
- Srotas : rasavaha, rakthavaha, artavaavaha
- Dushtiprakara : sanga

INVESTIGATIONS:

- LABORATORY - Lipid profile ,G.T .T , R.B .S , Urine routine , LH & FSH levels
- Radiological – USG of abdomen and pelvis, trans –virginals sonography in obese, laparoscopy

DIAGNOSTIC CRITERIA:

- Based on ultrasonic morphologic evidence of more than 12 follicles measuring 2-9 mm diameter , in single plane increased in volume and stroma is increased , capsule is thickened pearly white in colour
- Liver parenchyma changes (fatty infiltration of liver)
- Obesity (BMI increased more than 25 , altered waist –hip ratio in female more than 32 inches , increased body weight)
- Increase in serum levels of LH & androgen with normal FSH
- Total cholesterol and LDL are raised
- Raised levels of oestradiol and oestrone (oestrone markedly elevated) Androgen is elevated
- Testosterone elevated
- Insulin resistance. fasting sugar raised more than 25mIU/ml
- Levels of serum insulin response more than 300 mIU/ml at 2hrs post glucose (75 gms) load suggest IR

COMPLICATIONS / UPADRAVA:

- NIDDM with premature atherosclerosis
- Concomitant cardio vascular diseases
- Metabolic syndrome
- Endometrial & breast malignancies
- Infertility (due to anovulation)
- Delayed menopause

TREATMENT PRINCIPLES:

Development of Basic Ayurveda Treatment Modality /Chikitsa Muladarma (Conceptual Study) Hence the line of treatment for PCOS should be aimed at removing Kaphaavarana immediately and after that, normalizing the Vata and Pitta dosha. PCOS treatment should be plan in to 2 steps such as General treatment which should apply all PCOS patients and as specific treatment (Symptomatic treatment) which should change according to preference of the patient.

Tatra Samshodhanam Agenyanam Cha Dravyanam Vidhivatpuyogaha (Su Su 15/12) While mentioning the treatment of Artava kshaya, Sushrut has mentioned Shodhana and use of Agneya dravya as general principle of treatment. Dalhana while commentating on the above principle states that here Vamana should be applied for shodhana not

Virechana because virechana causes kshaya of pitta which will further lead to artava kshaya as artava is considered to be agneya and as other principle states that Tatra Svayonivardhanaiva Pratikara (Su Su 15) so, here Vamana karma which will decrease Saumya dhatu in body and increase Agneya guna – should be applied.

- To clear the obstruction in the pelvis
- Shodana procedure
- To normalise metabolism
- To regulate the menstrual system
- Hormone rebalancing dravya
- Insulin enhancing and doshahara dravya
- Yoni doshahara – that acts at the level on hypothalamus pituitary axis
- Yonivyadhihara- dravya which act on organic disease of genital tract
- Dravya which aid the bleeding and clotting mechanism (raktha pitta hara) and lipid , carbohydrate metabolism .

TREATMENT:

- Wedge resection of ovaries
- Ovulation induction
- Low dose estrogen
- Ovarian diathermy
- Laser vaporization
- Weight reduction
- Low dose Metformin

HERBS:

- Ayurvedic treatment principle aims at hormone rebalancing , dosha hara (kaphahara) & inslin sensitizing drugs
- Dravya that are rich sources of estrogen (phytoestrogens) are of immense value in maintaining estrogen homostasis & restoring health and quality of life

ASHOKA – Saraca Indica

- Strengthens and tones the uterus
- Promotes regular menstruation
- Supports a healthy , comfortable monthly flow
- Promotes healthy ovarian and endometrial tissue
- Bark – uterine tonic (imparts healthy tone to uterus), used for suppressed menses,
- Pure phenolic glucoside, isolated from stem bark,exhibited highly potent oxytocic activity on different mammals & was similar in nature topitocin and ergometrine

LODHRA – Symplocos Racemosa

- Spasmodic , used as a uterine tonic for preventing abortion
- Exhibits anti oxytocic activity
- Used as specific remedy for uterine complaints and liver disorder
- The bark extracts have been reported to reduce the frequency and intensity of the contractions in vitro of both pregnant and non-pregnant uterine animals

SHATAVARI – Asparagus Racemosus

- Galactagogue and genitourinary tract infections ;as a styptic and ulcer –healing agent, and in sexual debility for spermatogenesis The plant contains saponins –shatavarins 1-4, shatavarin 4 is a glycoside of sarsasapogenin
- It also blocks the uterine spontaneous motility

YASHTIMADHU – Glycyrrhiza Glabra

- Anti – inflammatory , spasmolytic, mild laxative , anti stress , anti depressive , anti ulcer , liver protective , estrogenic , emmenagogue, anti –diabetic
- Genitourinary diseases , urinary tract infections; abdominal pain , gastric and duodenal ulcer, inflamed stomach , mouth ulcer & in adrenocorticoid insufficiency

TAGAR – Valeriana Wallichii

- Rhizomes and roots – for hysteria , nervous debility and as a sedative , spasmolytic

GUDUCHI – Tinospora Cordifolia

- Tridoshaghna , rasayana, balya ,diuretic
- Components like – gillisterol, gilion, tinosporin & gilenin contains proteins & phosphorus & calcium , it is hepatoprotective hypoglycaemic agent , immunomodulatory adaptogine , stimulates memory.

GUGGULU – Commiphora Mukul

- Medoghna ,pramehaghna
- It causes hypocholestramia, comparable to clofibrate
- It prevents coronary artery diseases and anti fibrinolytic

METHI –Trigonella Foenum

- Excellent medohara
- Having nutrition value comparable to cod liver oil
- Carbohydrate polymer reduces blood sugar , causes powerful contraction of gall bladder & there by increases the demand for bile secretions & greater usage of cholesterol thus lowering its levels
- Probably it builds collagen of the bones and is indicated for the health of bones and hairs.

Nimba Azadrieta indica

- It contains high amount of chromium and sulphur. And good hypoglycaemic agent.
- Shunthi Zingiber officinalice
- It is best Deepak pachaka aampachaka and tridoshhara.
- Punnarnava Bohurvia diffusa
- As the name suggests powerful regenerator, potent fibrinolytic comparable to Tranexemic acid, hepatoprotective, diuretic and laxative.

Bhringraj it is purgative, corrects metabolic activity, useful in spleen/hepatic disorders. Whole plant is useful in liver cell regeneration and immune modulator. Aqueous extract shows Myocardial depressant and hypotensive activity.

- Kalmegh it is deepan pachana and Alterative.
- Katuki purgative,digestive,carminative,corrects indigestion and cardiac tonic. Root yields bitter constituents like katukinkatukosoided-mannitol,katkoil katkosteroil and ketone which exerts hepato protective activity found to be more potent than Silymarine and the best hypolipidemic effect.
- Bhoomiamalaki best diuretic, cooling and anti diabetic.
- Gokshura vatapittahara sensitizer of hypothalamic pituitary axis.
- Anti ageing agent
- Promotes coronary circulation, rich source of calcium, helps in protein synthesis.

Manjishtha best kapha pittahara, hepatoprotector antioxidant powerful antimicrobial with special affinity to UTI organism best acts on hypothalamic pituitary ovarian and uterine axis. Corrects menstrual cycles there by relieving the problems of irregular menstrual cycle. It helps in reducing ovarian volume, analgesic, anti-inflammatory, anti spasmodic action relieves spasmodic dysmenorrhoea and endometriosis dysmenorrhoea. It improves ovarian steroid genesis and relieves tissue oedema.

- Vidanga Embelica ribes best digestive and blood purifier.
- Kasini Hibiscus cannabins appetizer, liver stimulant, increases digestive power, best nerving tonic and purgative.
- Rohitaka best diuretic and relieves abdominal complaints.
- Triphala it helps to clear obstruction and normalizes the channels/srotas.
- Amalaki rich source of vitamin C in the form of 8.7mg of amala is equivalent to 100 mg of ascorbic acid in bio activity. Tannins and flavonoides (quercetin) an excellent anti oxidant and cytoprotective. Increases lipid metabolism and enhances the action of anti diabetic drugs.
- Vibhitaki Tridoshhara, shothahara stimulates bile secretion and cardio tonic.
- Haritaki Tridoshhara rasayana, ayrvardhaka,contains chebullinic acid which is best laxative. Anti bacterial, anti viral and gut stimulant.
- Jeeraka and Sahachara help to destroy cysts on ovaries and stimulate follicular maturity.
- Shatapushpa best pain relieving agent and helps in follicular maturity.
- Atibala Prajasthapaka,garbhashaya dourbalya hara,brumhana ojovardhaka ,helps to conceive and avoids miscarriages.

Precautions...

Metformin acts by scavenging the glycoliation end products, whereas

the Sulphonilurias ex Glyclazid and Thiazolidinebiones (troglitazone) acts as antioxidants. Drugs having rasayana effects act as an antioxidants,immunomodulators, anti inflammatory and antiglycoliation end products (AGEs). Metformin is known for its fatal complications of lactic acidosis. It is highly nephro and hepatic toxic on prolonged use. Rosiglitazone is associated with hepatic toxicity hence prolonged use of these drugs develops resistance in due course of time. Hence poly herbal drugs with multidimensional action is more preferable, they avoid fatal complications.

Importance of extract based medicines

Effective

Fast absorption

Palatable

Easy to consume

Extract based medicines due to their above said qualities can be routinely prescribed to achieve optimum results.

Current market

Many Ayurvedic pharmaceutical companies are offering patent medicines to combat above conditions.

Emami Zandu pharmaceutical company has offered Livotrite- forte and Ovoutoline forte which normalizes the metabolism, enhances insulin secretion, and helps in normalizing menstruation there by clearing the pathology.

Drugs in their extract form help in quick digestion, absorption and fast action.

Ovoutoline Forte /Livotrite Forte

Two extract based medicines Ovoutoline Forte /Livotrite Forte

Containing drugs which are very helpful in achieving desired results.

Ovoutoline Forte

Ingredients

Lodhra extract 150mg

Asoka extracts 100mg

Shatavari extracts 100mg

Yashtimadhu extracts 100mg

Tagar extracts 50mg

Guduci extracts 25mg

Sweta jeeraka 25 mg

Shunti extracts 25mg

Livotrite Forte

Ingredients

Raktapunarnava extract 40 mg

Guduchi extract 40 mg

Bhringraj extract 20 mg

Kalmegha extract 20 mg

Kutki extract 20 mg bhumiamalaki extract 20 mg

Vidanga extract 12 mg

Kasini extract 10 mg

Rohitaka extract 10 mg

Conclusion

Thankfully a number of PCOS treatments are available that can help you manage the disease. However the single most important PCOS treatment is to lose weight if you are overweight.

By reducing calories and simple sugars, increasing lean protein and fibre and doing regular exercise you can help your body increase its response to Insulin, and possibly decrease androgen production. This may help reduce symptoms, restore normal menses and make it easier to conceive.

While there are medications that can help manage the symptoms you are experiencing, losing weight is the best thing you can do to help treat the disease. Artavakshaya in relation to PCOS can be best treated by using aforesaid patent medicines by the virtue of their samprapti vighatana kriyas and have prepared with standardized cutting edge modern technologies and adopting the vibrant concepts of Ayurveda best offered by Emami Zandu Group of Pharmaceuticals.

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- 33 Ibidem Kashyapa Samhita, Kalpastana, Revati kalpa Adyaya, 7/33.2:357