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A Literature Review on Marz Akyas Khusyatur Reham (Polycystic Ovarian Syndrome) in Unani System of Medicine

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ABSTRACT:
The MarzAkyasKhusyaturReham (Polycystic Ovarian Syndrome) is one of the most common causes of oligo-ovulatory infertility. It is characterized by oligomenorrhoea, obesity, hyper-androgenism and infertility. In Unani system of Medicine MarzAkyasKhusyaturReham (Polycystic Ovarian Syndrome) is mentioned under the headings of Amenorrhea, Obesity and other phlegmatic ZakariaRazi (860-925 AD) disorders described that women with PCOS can present with the clinical features of amenorrhea, hoarseness of voice and hirsutism. Unani physicians attributed MarzAkyasKhusyaturReham (Polycystic Ovarian Syndrome) to dominance of Balgham (phlegm). The modern civilization it included as lifestyle diseases. The sedentary lifestyle, craving towards the junk food, emotional and behavioural disturbances (like highly competitive attitude and social insecurities, all these factors disturb the hypothalamic-pituitary-ovarian (HPO) axis and perpetuate life style diseases like PCOS. Clinical manifestation of MarzAkyasKhusyaturReham (Polycystic Ovarian Syndrome), these may vary from skin changes such as acne, hirsutism, or alopecia to menstrual abnormalities as dysfunctional uterine bleeding, oligomenorrhea. Rhazes recommended regular induction of menstruation as one of the treatment modality applied for women who has developed masculine features suggestive of PCOS. He has given a line of management based on correction of temperament and menstrual irregularity by use of emmenagogue drugs (single or compound) and local application of herbs to reduce severity of hair growth, acne and hyper pigmentation. Moreover, Unani literature mentions the use of drugs for, which in turn refers for the correction of hormonal imbalance due to PCOS. These drugs are also containing phyto-oestrogens that mimic the estrogenic action and normalize the menstrual cycle, without any harmful effect to the body.

KEYWORDS: MarzAkyasKhusyaturReham, Polycystic Ovarian Syndrome, oligomenorrhoea, Unani drugs,

I. INTRODUCTION:

The MarzAkyasKhusyaturReham (Polycystic Ovarian Syndrome) is one of the most common causes of oligo-ovulatory infertility[1]. It starts appearing at 15 to 25 years of age and it may take years for its clinical presentation to appear. Over all incidence of MarzAkyasKhusyaturReham (Polycystic Ovarian Syndrome) is 4% to 22% in women and 50% of women seen at infertility clinics[2,3]. It is characterized by oligomenorrhoea, obesity, hyper-androgenism and infertility. In Unani system of Medicine MarzAkyasKhusyaturReham (Polycystic Ovarian Syndrome) is mentioned under the headings of Amenorrhea, Obesity and other phlegmatic ZakariaRazi (860-925 AD) disorders described that women with PCOS can present with the clinical features of amenorrhea, hoarseness of voice and hirutism[4]. Unani physicians attributed MarzAkyasKhusyaturReham (Polycystic Ovarian Syndrome) to dominance of Balgham (phlegm). Ibn-e-Rushed described that MarzAkyasKhusyaturReham is a disease of cold and moist nature and arises due to change in quantity and quality of balgham.Buqrat (Hippocrates), Ibn-e- Hubal Bagdadi, Ali Ibn-e-Abas Majoosi, RabbanTabri attributed PCOS due to pathology in liver (Sue MizajKabid) liverdysfunction which may lead to abnormal production of Balgham[5,6,7]. The modern civilization it included as lifestyle diseases. The sedentary lifestyle, craving towards the junk food, emotional and behavioural disturbances (like highly competitive attitude and social insecurities, all these factors disturb the hypothalamic-pituitary-

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ovarian (HPO) axis and perpetuate life style diseases like PCOS[8]. It was originally described by Stein and Leventhal in 1935[9]. PCOS results in the production of high amounts of androgen particularly testosterone and chronic anovulation. Clinical manifestations of hyper androgenism are as hirsutism, acne, alopecia and virilisation. PCOS accounts for most cases of oligomenorrhoea and about a third of those of amenorrhoea. History, examination, and first line investigations usually establish the diagnosis[8]. A more recent joint consensus statement between the European Society for Human Reproduction and Embryology and the American Society for Reproductive Medicine (ESHRE/ASRM) has revised the criteria for diagnosis of PCOD to include two from three of the following criteria: 1) Oligomenorrhoea /anovulation; 2) clinical or biochemical evidence of hyper-androgenism; 3) polycystic ovaries, with the exclusion of other etiologies.[10] The hyper-androgenism and anovulation that accompany PCOS may be caused by abnormalities in four endo-crinologically active compartments, (a) the ovaries, (b) the adrenal glands, (c) the periphery (fat), and (d) the hypothalamus-pituitary compartment.[11] During the reproductive years, PCOS is associated with increased morbidity including abnormal bleeding, infertility, increased pregnancy loss and other complications of pregnancy such as gestational diabetes mellitus[12]. Women with PCOS also have an increased risk of endometrial carcinoma because of long standing unopposed oestrogen stimulation[13]. PCOS is now thought to increase metabolic and cardiovascular risks such as atherosclerosis, coronary artery disease, myocardial infarction, these risks are strongly linked to insulin resistance and subsequent hyperinsulinemia and are compounded by the common occurrence of obesity, although insulin resistance and its associated risks are also present in non-obese women.[14,15]

SYMPTOMS:

Clinical manifestation of MarzAkyasKhusyaturReham (Polycystic Ovarian Syndrome); these may vary from skin changes such as acne, hirsutism, or alopecia to menstrual abnormalities as dysfunctional uterine bleeding, oligo menorrhoea, recurrent miscarriage and infertility. The hallmark clinical features of PCOD are menstrual irregularities (amenorrhoea, oligo menorrhoea, or other signs of irregular uterine bleeding), signs of raised androgen like (hirsutism, acne) and obesity[8]. Clinically the most common symptoms associated with PCOS are menstrual irregularities (90%), hirsutism (50-80%) depending upon 5α reductase activity in skin, infertility (75%) and obesity in approximately 50-60% of subjects. A gradation of thecal hyperplasia has been encountered in PCOS subjects, since both LH and insulin act at the thecal compartment of ovary to cause hyper-androgenemia. Moreover, the small and intermediate follicle predominate the PCOS scenario and the gradually proceed to atresia rather than the follicular dominance[17]. These two entities namely homogenous poly-follicular enlargement and thecal hyperplasia are well definable endo-sonographic landmarks of PCOS ovaries.

In conventional medicine treatment of PCOS is adapted according to a specific cause, goals of therapy include alleviating hyper-androgenic symptoms by use of anti-androgen drugs, inducing ovulation, regulating menstruation and preventing cardio-metabolic complications.[18] Hence, it is claimed that PCOS arises due to predominance of phlegm in the body which leads to cyst formation in ovaries, obesity and amenorrhoea. The Unani physicians consider that the early twenty years of life are the period of childhood which is predominated by phlegm, hence the phlegmatic disorders are more likely to occur at this stage. This probably may explain the role of phlegm as a contributing factor for the onset of this disease during this age group[4,20]. Rhazes recommended regular induction of menstruation as one of the treatment modality applied for women who has developed masculine features suggestive of PCOS. He has given a line of management based on correction of temperament and menstrual irregularity by use of emmenagogue drugs (single or compound) and local application of herbs to reduce severity of hair growth, acne and hyper pigmentation. Moreover, Unani literature mentions the use of drugs for, which in turn refers for the correction of hormonal imbalance due to PCOS. These drugs arealso containing phyto-oestrogens that mimic the estrogenic action and normalize the menstrual cycle, without any harmful effect to the body.

MANAGEMENT:

In modern medicine PCOD are currently treat symptomatically, according to their presenting features like irregular periods, anovulation, infertility, acne and hirsutism.

- Oral contraceptives in menstrual disturbance.
- Clomiphene citrate, ovarian drilling/ laser treatment and assisted reproductive techniques in anovulatory infertility.
- Cyproterone acetate, ethinylestradiol and spironolactone in hirsutism and acne.

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• Weight loss in menstrual disturbance and anovulatory infertility helps in improvement of metabolic perturbances and reduces the risk of coronary heart disease.
• Insulin sensitizing agents (such as metformin) in obesity, androgen excess, menstrual disturbance, anovulatory infertility and metabolic perturbances.

UNANI ILAJ:

Treatment is based on four categories:

1. IlajbilTadbeer (Regimenal therapy)[16,21]
2. IlajbilGhiza (Dietotherapy)[4,16,20,23]
3. Ilaj bid dawa (Pharmacotherapy)[4,22,23]
4. IlajbilYad (Surgical Treatment)[4,22]

1. **IlajbilTadbeer (Regimenal therapy):**[16,21]

MotadilRiyazat (moderate exercise) is advised to elder people to overcome this situation. International menopausal society recommended at least 150 minutes of moderate-intensity exercise per week, brisk walk, diet control, adequate sleep it produce musakhin effect to body and it expels harmful substances from body, improves mood and quality of life and prevent chronic diseases like liver disease, diabetes mellitus, it is beneficial to regulate menstruation. If the patient is obese, weight reduction is advised; this can be facilitated by hammam-e-yabis (steam bath) and dalak (massage).

To induce menstruation, hijama (wet cupping) is applied over the calf muscles of both lower limbs to divert the flow of blood towards the uterus.

1. **IlajbilGhiza (Dietotherapy):** Diet should be light, nutritious and easily digestible. • Use of fibrous food including green leafy vegetables and fresh fruits. • Avoid cold and dry food, late digestible food, heavy and spicy food. • Drink plenty of fluids.
2. **Ilaj bid dawa (Pharmacotherapy):**Rhazes recommended regular induction of menstruation as one of treatment modality applied for women who has developed masculine features suggestive of PCOD. He has given a line of management based on correction of temperament and menstrual irregularity by use of emmenagogue drugs (single or compound) and local application of herbs to reduce severity of hair growth, acne and hyper pigmentation.
3. **IlajbilYad (Surgical Treatment):**Fasd (venesection) of Rage Safin (saphenous vein) to divert the flow of blood towards the uterus to induce menstruation.

USOOL-E-ILAJ:

Emmenagogue Drugs (Mudir e Haiz), Drugs to concoct and evacuate the abnormal phlegm (Ta'deel e mizaj), Uterine tonics (Muqawwi e reham) Drugs for weight reduction Specific drugs – insulin sensitizers, natural drugs for hirsutism.

1. MudireHaiz (Emmenogogue) Drugs[21]:

a) Single Drugs: Abhal, tukhm-e-krafs, amaltas, alovera, khar-e-khasak, parsionshan, heeng, dodakapas, izkhar, tukhmkasoos, afsanteen, kranjwa, tukhmkharpza, mushkatrulmashee, chiraita, habb-e-qilt, habb-e-balsan, badiyan.

b) Compound formulations: Habb-e- mudir, safoof-e-mudir, sharbat-e-niswan, Joshandamudir-e-haiz, Sharbatbuzoori, arqkasni, Murakkabatefoulad etc[4,21,22]. Majoonmuqawwireham as uterine tonic.

2. TadeelMizaj (Correction of temperament):[4,21,23]

a) Munzij: MavezMunaqqa, Badiyan, Aslusoos, Persia wa Shan, AnjeerZard

b) Mushil: AyarijFaiqrah, Turbud, Enjeer with Arq-e-Badiyan.

c) Tabreed: KhameeraGauzabanSada wrapped in Warq-e-Nuqra

3. Weight Reduction:[4,21]

a) Safoof-e-lukwith sirka[31]

b) Safoof-e-Muhazzil with ArqeZeera.

4. Specific Drugs:

a) Use of insulin sensitizers like Darchini, Rewand, Abhal, Mushktramashi, Zafran, Asgandh etc.[24,25]

b) Natural drugs for hirsutism like Nagarmotha, AmbaHaldi, Methi, Pudina, Soya, Neem, Kalonji etc.[22,26]

These drugs having the properties of Muhallil-e-Auram (Anti- Inflammatory), Muffateh (Vasodilators), MudireBoul-o-Haiz (Diuretic and Emmenogague), Mulattif (demulcent), Musakkin Dard (Analgesic), MuqawiMedawaJigar (Tonic To Stomach and Liver), MuqawiDimagh (Tonic To Brain), Muqawi Bah (Aphrodisiac) etc. All these drugs are in the first degree of hot and dry temperament suggesting that the drugs possess moderate degree of hrarat and yabusat, which suits for Ihtebas e tams and uqr, caused by Sue mizajbarid. Moreover, these drugs contain flavonoids which have various biological activities such as hepato-protective, anti-inflammatory, uterine stimulant, antioxidant, digestive, anti-rheumatic, immunomodulatory, antihypertensive properties. And they contain phytoestrogens as well.[27,28]

Many single drug named, experimental studies have been conducted on few to explore

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pharmacological activities of these drugs and are associated with diverse limitations.
Neem, kalonji, satawar, aslussoos:

Neem (Azadirachtaindica) and Zanjabeel (Zingiber officinalis)

They can be used in PCOD, as clinical study conducted on PCOD showed that 20 patients had PCOD at base line and after treatment, it persist in 6 patients only. This effect is attributed to anti-androgenic, hypoglycaemic and insulin sensitizing activities of these drugs which serves as an alternate option in PCOD.[26]

Satavar (Asparagus recemosus):

It can be used in PCOD, as clinical study conducted on infertility showed that11 patients had PCOD before treatment, while on post treatment scan; only 1patient had same findings. This effect is attributed to the presence of phytoestrogens-steroidal saponins in this drug which exert hormone like action in the body.[28]

(a)-Whole plant of *Asparagus racemosus* (b)-Dried tuberous roots of *Asparagus racemosus*

Aslussus/Liquorice (Glycyrrhizaglabra): Clinical studies conducted on liquorice confirmed that it reduces serum testosterone probably due to the block of 17- hydroxysteroid dehydrogenase and 17-20 lyase in PCOD.[27]

Kalonji (Nigella sativa Linn): Kalonji oil was proved to be effective in patients of insulin resistance syndrome and in alleviating the obesity mainly due to its insulin sensitizing action. Various components of kalonji like thymoquinone, thymol, unsaturated fatty acids, lipase and tannins are responsible for its beneficial effects in insulin resistance syndrome.[29,30]

II. CONCLUSIONS:

PCOS is a common disorder that has received much importance over the past years. We have, however, learned much about the consequences and diagnosis of this disease. The recent diagnostic criteria outlined in the EHSHRE/ARM consensus statement is a move in the right, the same can be well correlated with the descriptions given by renowned Unani Physicians in their respective treatises. Potential treatment options in Unani medicines includes Muddir-e-haiz (Emmenagogue), Idrarhaiz, Tadeelmizaj, Weight reduction, Specific drugs like insulin sensitizers can be used to alleviate the ailing eves from this complicating disease. In addition, none of the studies has reported any adverse effects with the drugs. Further, there is a great need to do more research on making medicine more effective.

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