An Overview of Polycystic Ovarian Disease Associated Secondary Amenorrhoea in Unani System of Medicine

Dr. Ismath Shameem¹, Dr. Rehana Khatoon²

¹Lecturer, Dept. of Ilmul Qabalat wa Amraze Niswan, National Institute of Unani Medicine, Bangalore-560091 Karnataka, India
²MS (Ilmul Qabalat wa Amraze Niswan,) National Institute of Unani Medicine, Bangalore-560091 Karnataka, India

Abstract: Polycystic ovarian syndrome (PCOS) is a heterogeneous disorder, with multiple reproductive, cosmetic and metabolic complexities which is characterized by dysfunction in ovulation and clinical or biochemical hyperandrogenism and the presence of polycystic ovarian morphology. Women with PCOS have increased rate of insulin resistance and hyperandrogenism which have been implicated in the dysfunction of HPO-Axis, leading to anovulation and menstrual irregularities. In classical Unani text, it is mentioned that ihtibas-i-tams usually occurs in women with balghami mizaj and fair complexion, and is mainly caused by dominance of khilt-i-balgham, which increases the viscosity of khun-i-hayd and form suddha, as a result menstrual blood fails to expelled out of the uterus. The treatment available in conventional medicine is oral use of hormone therapy and insulin sensitizing agents, but this treatment has got its own side effects and complications. Several medicines are available in Unani system of medicine, which act as insulin sensitizer, uterotonic and causes withdrawal bleeding in patients with PCOS associated amenorrhoea. This review article gives a detailed description of PCOS associated secondary amenorrhoea including its etiopathogenesis, diagnosis, principle of treatment in Unani system of medicine.

Keywords: PCOS, Secondary amenorrhoea, Herbal insulin sensitizer, Unani system of medicine.

1. Introduction

PCOS is the most common gynecological endocrinopathy of child bearing aged women characterize by hyperandrogenism, ovarian dysfunction, and polycystic ovarian morphology, which affects approximately 4 to 12% of whole female population. Secondary amenorrhoea occurs in 10-20% of patients complaining of infertility and is one of the commonest reasons for referral to a gynecological endocrine clinic. It has been estimated that secondary amenorrhoea, has a prevalence ranging from 3 to 4% in reproductive age group women. Adams et al. (1986), found PCOs in 26- 30% of patients with amenorrhoea, and in 87% with oligomenorrhoea. The prognosis depends on the cause of amenorrhoea. Secondary amenorrhoea associated with PCOD will respond to treatment. The available treatment in conventional medicine is hormone therapy and insulin sensitizing agents, to reduce insulin resistance and androgen levels as well as to improve ovulatory function in women with PCOS. Metformin, the most widely used drug in PCOS is often poorly tolerated because of gastrointestinal side effects, and hormonal therapy though effective in menstrual cyclicity, has got its own complications like venous thrombo-embolism, stroke, breast, endometrial and ovarian cancer and are contraindicated in patients with hypertension, cardiac diseases, liver diseases, DVT etc. Conventional pharmaceutical management is limited by the prevalence of contraindications in women with PCOS, non-effectiveness in some circumstances, side effects and by preferences of women with PCOS for alternatives to pharmaceutical management. Hence, there is an increase demand for herbal therapy which is to be safe, effective and easily available. The treatment plan in Unani system of medicine for secondary amenorrhoea in PCOD patients is based on the concept that, treat the cause of amenorrhoea i.e. PCOD with lifestyle modification through tadbir, ghiza and dawa, use of gawi mudirr-i-hayd advia to induce menstruation, use of munjij wa mushil-i-balgham advia for tania-i-bidan and finally use of Unani medicines which act as insulin sensitizers in PCOD patients.

2. Material & methods

For Unani concept of disease, available authentic text of Unani Medicine was searched. Literature was also searched on PubMed, Google Scholar, Medline, Science Direct with the keywords; PCOS, secondary amenorrhoea, herbal insulin sensitizer, Unani system of medicine etc.

Unani Concept: Unani physicians mentioned the description of PCOD under the headings of amenorrhoea, obesity, phlegmatic diseases and liver disorders. Ihtibas-i-tams (Amenorrhoea): In classical Unani text, it is defined as cessation of menstruation, either it varies from scanty flow to complete cessation or it occurs at interval of ≥2 months. Duration of inter menstrual period ranges from 20 to 60 days and if it exceeds, above this level then, it is considered as abnormal and called as ihtibas-i-tams. It usually occurs in women having balghami mizaj and fair complexion and such women generally suffer from usri-i-tams as heavy menstrual bleeding may occur after a long period of amenorrhoea.

Etiopathogenesis:
and cold skin, Ghalba
Specific symptoms: tiredness, colo
restlessness, constipation,
Diagnosis:
c) Zo’af-i-jigar: Patient present with h/o liver diseases and c/o heaviness in right hypochondium, whitish coloured urine seldom mixed with blood and change in skin colour. On examination- hardness felt in right hypochondric region.

Sudda: Menses stops gradually, feeling of heaviness in the body, abdominal distension due to flatulence, and change in skin colour.

Sometimes amenorrhoea results in marked changes in the body structure such as, appearance of excessive hair growth on the body mainly on face, hoarseness of voice, and change in temperament of the organs as well as the body. These changes mainly occur in those women who are multiparous; having masculine features, prominent vessels and such women resembles men. (Jalinoos)

Complications: Ibn Sina states that when blood goes towards the uterus (which is a natural passage for excretion of menstrual blood) and if it does not find the way to escape out from the body; it will return back to the body, and when this process is repeated several times, it results in complications such as ascitis (infertility), warram al-jigar (hepatitis) 

Ibn Sina states that amenorrhoea is associated with tul ihtibas-i-mani, farbihi, and warram and such type of women resembles men. Thus, a well established association exists between anovulation, amenorrhoea, obesity, and infertility which correlate with polycystic ovarian disease.

PCOD: It is mainly based on the dominance of khilti-balgham. It has been mentioned in Unani encyclopaedia’s that su’ti misaj barid (abnormal cold temperament) of the liver may leads to abnormal production of balgham, as liver is unable to convert chyme into blood, instead it converts it into balgham-i-lazuj. One of the abnormal form of balgham is ma’i balgham, which is thinner in consistency and can accumulate in sacs to form cysts. Also the other predominant symptoms of PCOD like amenorrhoea, oligomenorrhoea and obesity have been attributed to rise of balgham.

Hirsutism: It is mentioned as a complication of prolonged amenorrhoea associated with other masculine features like hoarseness of voice, male body contour, acne etc. Ibn Sina and Ismail Jurjani explained the basic pathophysiology of hirsutism as variation in normal temperament of women. If amenorrhoea persists for a long duration, it causes alterations in internal environment of the body and disturbed the equilibrium status of women, leading to growth of excessive hair over the body. The normal temperament of women gets transformed towards that of men due to prolonged amenorrhoea, which is mainly due to ihtiraq of balgham to sawda which leads to hirsutism, hyper pigmentation (acanthosis nigricans) and formation of some

\[\text{Figure 1: Asbabe Ihtibas-i-tams specific to PCOD}\]

- Su’i-mizaj barid causes sudda formation in uterine blood vessels due to excessive intake of fluids, which in turn leads to amenorrhoea and infertility.
- Akhat-i-ghaliz mainly balgham increases the viscosity of blood due to lazujat. This ghali madda gets accumulates in the blood after intake of ghaliz and sakhil ghiza and forms sudda, which blocks the uterine vessels and results in amenorrhoea.
- Zo’af-i-jigar causes amenorrhoea via three factors: Blood flow to distant organs fails as liver is unable to differentiate the blood from other body fluids. Improper tawild-i-kuhn (defective haemopoiesis). Formation of sudda within the liver causes obstruction in blood flow towards the uterus.
- Farbihi causes amenorrhoea in three ways: Excessive fat deposition on the uterus compresses the uterine blood vessels. Sudda formation due to excess accumulation of balgham in uterine vessels.Alteration in the ovarian function due to dominance of rutubat and buruadat in the body, causes tul ihtibas-i-mani (chronic anovulation) which results in menstrual irregularities and infertility.

Diagnosis: It is based on clinical presentation of the patient.

General symptoms: Headache, dyspnoea and chest pain on exertion, palpitation, fainting, indigestion, loss of appetite, nausea, excessive thirst, constipation, heaviness in the body, restlessness, dysuria, low urine output, high coloured urine, excessive sleep, salivation, tiredness, obesity etc.

Specific symptoms:
- Ghalba-i-balgham: Patient is obese, puffy and flabby body, cold skin, pale face, prominent vessels, nabz- bati and mutafavit, bawl- sufaid, ghaliq and kasis, baraz-balghami, menstrual blood is red in colour and thin in consistency, and scanty pubic hair.
- Zo’af-i-jigar: Patient present with h/o liver diseases and c/o heaviness in right hypochondium, whitish coloured urine seldom mixed with blood and change in skin colour. On examination- hardness felt in right hypochondric region.

\[\text{Volume 7 Issue 10, October 2018}\]

\[\text{www.ijsr.net} \]
\text{Licensed Under Creative Commons Attribution CC BY}
unwanted material which is being excreted through skin pores in the form of *busur-i-labaniyya* (acne). It was observed by *Ibn Sina*, Ismail Jurjani and Al-Razi that development of masculine features is more common in obese women with robust body and prominent blood vessels, as these women have almost similar temperament as that of men.

### Acne Vulgaris (*Busur-i-labaniyya*):
These are small white eruptions on the face, which resemble condensed drop of **milk**, thus named as *muhasa* (*Ibn Sina*). These eruptions are caused by *maddu-i-sadidiya* (infected matter) which comes towards skin surface due to *bukharat-i-badan*. Generally, it appears in young girls between 16-25 years of age due to menstrual disturbances or amenorrhoea.

**Usul-i-ilaj:**

1. **Life style modification:**
   **Ilaj bi’l ghiza:**
   - *Taqil-i-ghiza*\(^{15,17}\)
   - Use *mulattif aghzia* like\(^{15,23}\) lukewarm water or sirkalkanjii in empty stomach.\(^{30}\)

   **Diet allowed:**
   - Use *qalil al-taghziya wa kasir al-kamya’t ghiza*\(^{17,31}\) like vegetables & fruits which fills the stomach.\(^{16,26}\)
   - Add spices such as *filfil*, *raai*, *zeera*, *lehsan* to the vegetables;\(^{18}\) use plain soup, vegetables with dry chapatti.\(^{15}\)

   **Diet restricted:**
   - Avoid cold water,\(^{17,18}\) milk, butter, mutton, fish,\(^{32}\) oily and fried food.\(^{33}\)

   **Ilaj-bil-tadbir:**
   - *Riyazat*: *Riyazat-i-qawi*\(^{15,17,23}\) to reduce body weight.\(^{18}\)
   - *Dalak*: *Natraan* or *uzfit balut* followed by *hammam* can reduce fat accumulation.\(^{15}\)
   - *Abzan*: *Joshanda* of *mulattif* drugs such as *shibbat*, *marzanjosh*, *pudina*, *sudab*, *babuna*, *aqeelul malik*, *sa’atar*, *qardmana*, *kalonji*, *heeng*, *asaroon*, *tagar*, *dooq*.
   - *Takmid*: Takmid at lower abdomen with *advia* mainly *advia-i-muhammira* as it stimulates blood flow towards the uterus.\(^{18}\)

   **Insulin sensitizer**
   - *Usul-i-drugs acting as insulin sensitizer*\(^{20}\)

   **Improvement of menstruation**
   - *Qawi Mulattif-i-hayd Advia*\(^{23,28}\)
   - *Manzije mulattif-i-balgham advia*\(^{15,16,18,18}\)

   **Treating the actual cause of Secondary Amenorrhoea i.e; PCOD**\(^{16,19}\)

![Figure 2: Principles of treatment in Unani medicine](image)

**Volume 7 Issue 10, October 2018**

*www.ijsr.net*

Licensed Under Creative Commons Attribution CC BY

Paper ID: 26091802

DOI: 10.21275/26091802
removes the toxic blood from the body, thus it detoxify the body.\textsuperscript{35}

\textbf{Ilaj bi’l dawa:}
- Use \textit{ma’al-usul} with mulattif and har mudirrat like joshanda post-i-kyharshamber, mushtkaramashti, parsiyaushan, qand siyah kolna etc.\textsuperscript{23}
- Mudirrat-i-harra advice like parsiyaushan, badiyan, khubaci, zoofa, tukhm sudab, ansinoon, biranjasisf, qast sheerin, hab balans, kalonji, ajmood, pudina, ajwain desii etc.\textsuperscript{26}
- Use \textit{ma’jun} having demulcent property e.g: tiryaq-i-kabeer, ma’jun-i-kamooni,\textsuperscript{19} ma’jun-i-biladuri.\textsuperscript{30}

\textbf{2- Use of gawi mudirr-i-hayd advia:}
\textbf{Oral use:}
- Ayarirj and loghaziya,\textsuperscript{16} afawiya, fiwvah.\textsuperscript{15}
- Joshanda turmus and surkh lobiya with shehad or joshanda turmus with mur and sudab.
- Mushtkamatamshi, abhal, majeeth each 1 part, tukhm-i-karafs, soonf, elaichi khard, behroza, sakbeenaj, jausheer, mastagi, each 1/2 part; all ingredients are finely powdered and used in a dose of 5 g with joshanda turmus and lobiya surkh after adding shehad.
- Sikjanbeen-i-usuli with habb-ul-ghar 4 g and behroza 2 g.\textsuperscript{19}
- Prepare tablet of muqil, mur, abhal in equal quantity and used in a dose of 10.5 g.\textsuperscript{23}
- Prepare tablet from the extract of majeeth, mushtkamatamshi, kardmana, sudab, abhal and heeng, each 2 g and used in a dose of 35 g.\textsuperscript{15}

\textbf{Single Drugs:} Darchini, ayarirj feeqra, sakbeenaj, jausheer, junbedastar, kardmana, tukhm marzanjosh, mushtkamatamshi, abhal, majeeth, pudina nehtri, pudina kohi, afsanteen, soonf, krb, karafs, ansinoon, sudab, zarawand, irsa, bakhar maryam, ashnan, asaroon, izkhar, qast, habb-ul-ghar, javitri, o’od balsan, ushq, murmakki, indrain, farfiyun, kalonji, turmus, lobiya etc.\textsuperscript{15,17,19,23}

\textbf{Compound formulations:} Qurs abhal, ma’jun abhal, sharbat buzari, sharbat karoos, sharbat ja’ada, sharbat biranjasisf, sharbat saleekha, naq buzer,\textsuperscript{17} dhamarsa, ayarirj feeqra, loghazia, aqras mur, sharbat afsanteen.\textsuperscript{19}

\textbf{Local use:}

\textbf{Humul:}
- Farfiyun\textsuperscript{15} or farfiyun\textsuperscript{18,30} or bikh-i-badam talkh, usara brinjasif with mur, zarawand, ro’ghan aqevehn.\textsuperscript{17}
- Ashnan farsi, aqarqarha, kalonji, sudab taza, farfiyun in equal quantity, mixed with ganda behroza and used with ro’ghan zanabq.\textsuperscript{15,17}
- Muqil 35 g, jausheer, asal labni, harf, kardmana, tukhm jardeer, jundbedaster and ro’ghan sosan.

\textbf{Dhuni:}
- Nankhwah\textsuperscript{15} hanzaal, jausheer, kardmana, hiteet, sakbeenaj\textsuperscript{15} tukhm karafs, heeng.\textsuperscript{18} Karam kalla or behroza, jausheer, gandhaq daughed in zehra gau.\textsuperscript{19}
- Methi,\textsuperscript{15} jundbedaster, nakchhikiz, izfarutteed, o’od, miy’a saila.

\textbf{Abzan:}
- Sudab, abhal, karafs, karnab, raziyana,\textsuperscript{16} mushtkaramashti.\textsuperscript{17}
- Tukhm karafs, karnab, raziyana, sudab, biranjasisf, abhal, footnaf.\textsuperscript{16}

\textbf{Zimad:}
Apply paste of biranjasisf over suprapubic region\textsuperscript{15} or tukhm bedanjeer over umbilical region.\textsuperscript{21}

\textbf{Takmid: Mudir and aromatic drugs}
- Afawiya (over umbilical and suprapubic region).\textsuperscript{15,17,23}
- Prepare joshanda with coarse powder of balcharh, darchini, javitri, jayhalph, elaichi gust, aqaqia over the umbilical region.\textsuperscript{19}
- Sumbal, saleekha, darchini, o’od balans, hab balans, javitri, jawzibua, elaichi khurd wa kalan, gust, hamama, shagufa izkhar.\textsuperscript{15,16}

\textbf{Huqna:}
- Ro’ghan yasmeen with ro’ghan nardeen,\textsuperscript{16} or ro’ghan sumbul or qast or chambeli.
- Abhal, turmus, lobiya surkh each 35 g, majeeth, afsanteen, pudina, balcharh, sudab khusk, izkhar each 7 g, shoneeez, kundus, behroza, jausheer each 4 gm, boil in water and mix ro’ghan yasmeen. Use 100 ml decoction after adding jundbedaster 1 g and sprinkle za’fran over it.\textsuperscript{19}

\textbf{3-Use of munzij wa mushil-i-balgham advia:}\textsuperscript{15,32}
\textbf{Oral:}
- Tangia-i-balgham with hab ayarirj or hab sakbeenaj and expel out ghaliiz madda via qa’i.\textsuperscript{18,23} If balgham-i-lauzj fails to get evacuated, same can be expelled out via ishal.\textsuperscript{17}
- Ma’al-usul with ro’ghan bedanjeer 7 g, ayarirj feeqrah 1.047 g and use every morning for 7-9 days.\textsuperscript{18}
- Ma’al-usul, ro’ghan arand with hab mantin.\textsuperscript{15}
- Joshanda aftimoon\textsuperscript{25} or post-i-khayarshamer, parsiyaushan, qand siyah kolna.\textsuperscript{23}
- Powder of mastagi, zanjabeel, zeera siyah, each 1 g with jawarish jalinoos 7 g.
- Joshanda pudina khusk, elaichi khard wa kalan, each 5 g; zanjabeel, zeera siyah, ansinoon each 3 g, mixed with khameera banafsha 50 g and used in the morning. Sheera prepared from badiyan 5 g, zeera siyah, zanjabeel, ansinoon 3 g, arq elaichi 120 g, with khameera banafsha 4 g and used in evening.\textsuperscript{24}
- Mashrudittus, sanjareena, dawa’al-misk har, tiryaq-i-faroog, ma’jun filasifa, and other har ma’jun and jawarishat.\textsuperscript{25}

\textbf{Local:}

\textbf{Zimad:} Karnab and methi,\textsuperscript{18} tukhm bedanjeer.\textsuperscript{23}
\textbf{Huqna:} Joshanda babuna, soya, marzanjosh, methi, anjeer khusk mixed with ro’ghan kunjud.

\textbf{Humul:}
- Ro’ghan bedanjeer or ro’ghan naardeen or gazarasharti.\textsuperscript{18}
- Za’fran, sumbulutteeb, shib yamani, o’od, sazzj hind, anzurat, charbi murghabi and zarbi-i-baize murgh.
- Jawzbuwa, kazmazjish, phitkari biryan, post anar each 4.5 g finely powdered.\textsuperscript{23}

\textbf{Volume 7 Issue 10, October 2018}

\url{www.ijsr.net}

Licensed Under Creative Commons Attribution CC BY

Paper ID: 26091802

DOI: 10.21275/26091802 321
Abzan:
- Joshaunda methi, marzanjosh, babuna, soya. 18
- Joshaunda shibbat, pudina, marzanjosh, sudab, babuna, akkeleelul malik, sa’iar. 21

Dhuni:
- Zarneekh surkh, mur, juczar, miy’a, ginna, habbal-ghar; used after menses.
- Muqil, ushh, ilakulambat, shoneez. 15

Use of munizji wa mushil-i-sawda advia for hirsutism & acne vulgaris:
Usul-i-Haj: Oral use of tanqia-i-badan with munizji-mushil therapy followed by topical application of mujaffij and muhallil advia for acne & haliq and mukhaddir advia for hirsutism. 19, 29

Hirsutism:
- First apply, lime with lead carbonate 26 for removal of hair, followed by application of nargamotha, amba haldi, methi, pudina, soya, neem, kalonji to prevent further hair growth. 20
- Tukhm utangan with ro’ghan or asagpool with sirka or jundbedaster with shehad. 19

Acne vulgaris:
- Nuskha Mathukh: Post halela zard 7 g, post halela kabli 17 g, aftimoon 20 g, ustukhuddus and gul-i-banafsha each 14 g, bisfaij fastuqi 10.5 g, first boil halejat and bisfaij in 3 litre of water till 750 ml water remains, afterwards add ustukhuddus and gul-i-banafsha and boil till 500 ml water remains, then add aftimoon after rapping in a cloth and boil for 2 or 3 times and put off the fire, allow it to cool down by itself and filtrate it.
- Elwa 3.5 g, gharigoon, maghz; bil each 2 g, namak hindi 1.75 g, kharbaq sivah 860 mg; all ingredients are grinded to make fine powder, then dooughed in sugar syrup and used followed intake of nuskha mathukh 2 to 3 hours later.

Local use:
- Tila-i-Mahas: Irsya, post-i-saroos, barg shibbat, aard-i-jau, safaida khashagiri, all in equal quantity grinded in goat’s milk. 28
- Shoneez, naushadar and bura armani mixed with sirka. 28
- Murdar sang, bura armini, with ro’ghan gul or kalonji with sirka.
- Gil-i- armani, bura ushnan sabz and tukhm kharbuza. 19

4- Use of Unani medicines which act as insulin sensitizers:
Mechanism of action of herbal insulin sensitizers: These medicinal plants act on insulin sensitivity via various cellular and metabolic targets and the principle sites of target are the liver, adipocytes and muscles. These potential plants targeted insulin action via several pathways: inhibition of hepatic glucose production or potentiating the peripheral glucose utilization in the muscles and adipocytes by regulating the activity and expression of key enzymes and glucose transporters. In addition, a lot of medicinal plants improve insulin sensitivity through the stimulation of insulin-signaling pathways. Herbal insulin sensitizers are methi, 37, 38 karela, 39 jamun, 40 haldi, 41 zaizoon, 42 darchini, 43, 44 kalonji, 45 zanjabeel, 46, 4 gurmar, 48, zafran, 49 elwa 50 etc.

3. Conclusion
Polycystic ovary syndrome (PCOS) is a complex, reproductive and endocrine disorder affecting up to 17.8% of reproductive aged women characterized by polycystic ovaries, chronic anovulation and hyperandrogenism leading to symptoms of oligo/amenorrhoea, hirsutism, acne, and infertility. Conventional pharmaceutical management is limited due to contraindications in women with PCOS, non-effectiveness in some circumstances, side effects and by preferences of women for alternative management. In USM effective treatment is available with fewer side effects and recurrence rate; but experimental studies were conducted on few Unani medicines, that too on small number of patients with variations in dosage & duration of treatment. Hence, future trials are recommended on large sample size for longer duration to prove the efficacy and safety of Unani drugs in the management of secondary amenorrhoea in PCOD patients.

4. Acknowledgement
Authors are thankful to authors and editors of all those books and journals from where the literature for this article has been reviewed, discussed and cited. This paper should be included under the subject of Gynecology

5. Conflict of Interest
None declared, no funding from any source

References


Author Profile

Dr. Ismath Shameem, Lecturer, Dept. of Ilmul Qabalat wa Amraze Niswan, National Institute of Unani Medicine, Bangalore-560091 Karnataka, India