



E-ISSN: 2321-2187

P-ISSN: 2394-0514

www.florajournal.com

IJHM 2025; 13(2): 38-42

Received: 09-01-2025

Accepted: 13-02-2025

Dr. Shabnam Ansari

Regional Research Institute of
Unani Medicine, JJ Co-Location
Centre, Next to eye Bank, Sir JJ
Hospital, Compound, Byculla,
Mumbai, Maharashtra, India

Dr. Fatima Rafique

Hayat Unani Medical College
and Research Centre, Lucknow,
Uttar Pradesh, India

Dr. Ziaur Rahman

Regional Research Institute of
Unani Medicine, JJ Co-Location
Centre, Next to eye Bank, Sir JJ
Hospital, Compound, Byculla,
Mumbai, Maharashtra, India

Polycystic ovary syndrome (PCOS) in the light of Unani perspective

Shabnam Ansari, Fatima Rafique and Ziaur Rahman

DOI: <https://www.doi.org/10.22271/flora.2025.v13.i2a.976>

Abstract

Polycystic Ovary Syndrome (PCOS) is a prevalent endocrine disorder characterized by menstrual irregularities, ovarian cyst formation, obesity, and metabolic disturbances. The Unani system of medicine attributes the pathogenesis of PCOS to an imbalance in *balgham* (Phlegm) due to the derangement of *Mizaj* (Temperament), particularly *Su-e-Mizaj Barid Balghami* (Derangement of cold temperament). The excessive accumulation of *balgham mayi* leads to cyst formation and various manifestations such as *ehtebase tams* (Amenorrhea), *qillate tams* (Oligomenorrhea), *uqr* (Infertility), *samanmufrit* (Obesity), hirsutism and hoarseness of voice. This manuscript explores the Unani understanding of PCOS, highlighting its humoral pathology, diagnostic principles, and therapeutic approaches. Understanding the disease from a Unani perspective can provide insights into traditional management strategies, emphasizing temperament correction and lifestyle modification.

Keywords: PCOS, Unani medicine, complementary medicine, *Su-e-Mizaj Barid Balghami*

Introduction

Polycystic ovary syndrome (PCOS) is a complex, heterogeneous endocrine and metabolic disorder affecting women of reproductive age globally. It is characterized by anovulation, infertility, obesity, insulin resistance, and polycystic ovaries [1-2]. It is often associated with psychological impairments, including depression, mood disorders, and metabolic abnormalities such as insulin resistance, compensatory hyperinsulinemia, abnormal glucose tolerance, obesity, and dyslipidemia [3].

The global prevalence of PCOS ranges from 4% to 21%, while in India, estimates vary between 2% and 35% [1]. The etiology of PCOS is multifactorial, involving a complex interplay of genetic, environmental, and lifestyle factors. Key contributors are environmental pollutants, dietary patterns, sedentary lifestyles, obesity, and gut dysbiosis [2]. These factors may lead to excessive ovarian androgen secretion, insulin resistance, arrest folliculogenesis, and the chronic low grade release of inflammatory mediators from white blood cells, exacerbating metabolic syndrome.

The pathophysiology of PCOS involves excessive androgen secretion from the ovaries and adrenal glands, hyperinsulinemia and altered steroidogenesis, contribute to heightened androgen production. Characteristic features include an increased number of growing follicles with premature arrest of antral follicles at 5-8 mm in size. The classic ovarian phenotype, which includes enlarged ovaries with a "string-of-pearl" morphology and theca interstitial hyperplasia, reflects chronic androgen exposure [2].

Effective management of PCOS involves a multifaceted approach, including lifestyle modifications, and targeted therapeutic interventions. Lifestyle interventions, such as weight loss and regular exercise, play a crucial role in managing insulin resistance and improving function of ovulation. Pharmacological treatments include metformin, combined oral contraceptive pills, clomiphene citrate, spironolactone, and topical therapies for hirsutism and acne. Early identification and management of at risk individuals essential to mitigate long term complications and improve overall health outcomes [3, 4, 5].

The Unani system of medicine is based on the principles of *Mizaj* (temperament) and *Akhlat* (Humors), as described by different Unani scholars. According to Unani literature, every individual possesses a distinct temperament, which is fundamental to understanding their physiological and pathological state. In the diagnostic process, it is imperative to consider the individual's temperament, as it reflects deviations in the body's condition or organ function

Corresponding Author:**Dr. Shabnam Ansari**

Regional Research Institute of
Unani Medicine, JJ Co-Location
Centre, Next to eye Bank, Sir JJ
Hospital, Compound, Byculla,
Mumbai, Maharashtra, India

from normal homeostasis [6, 7].

In the Unani literature, diseases are believed to arise due to imbalances in *tabayimizaj* (Moderate temperament) and *tabayiakhlal* (Normal humors). The *tabayimizaj* can be influenced by various internal and external factors, leading to *Su-e-Mizaj* (Derangement of temperament), each presenting distinct clinical signs and symptoms. Specifically, alterations in the *Su-e-MizajBarid* (Derangement of cold temperament) of the liver are linked to abnormal production of *balgam* (phlegm). An abnormal form of *balgam*, known as *balghamayi*, is characterized by its diluted consistency and a tendency to accumulate in sacs, leading to cyst formation [8].

Unani literature identifies signs and symptoms that are associated with *Su-e-MizajBaridBalghami* (Derangement of cold temperament) of the liver may lead to abnormal production of *balgham* (Phlegm). One of the abnormal forms of *balgham* is *balghamayi*, which is much diluted in consistency and possesses a tendency to accumulate in a sac to form cysts [9]. According to *Ali Ibn Abbas Majoosi*, an altered temperament of the liver, particularly when it becomes *Barid* (Cold), impairs its ability to transform chyme into blood and disrupt this process leads to the production of tenacious *balgham* (Phlegm) [10, 11]. He also identified *samanmufrit* (Obesity) as a contributing factor for *ehtebase tams* (amenorrhea), attributing it to reduced blood flow and narrowing of blood vessels due to increases viscosity of blood as a result of *Su-e-MizajBaridBalghami*. This abnormal *balgham* accumulates within the body, altering the temperament and manifesting as symptoms such as *ehtebase tams* (Amenorrhea), *qillate tams* (Oligomenorrhea), *uqr* (Infertility), *samanmufrit* (Obesity) and hirsutism [12, 13]. The details of this similarity and management strategies from Unani medicine are reviewed in this manuscript.

Methods materials and methods

Relevant literature regarding PCOS was retrieved from manual literature survey of classical Unani texts such as, *Kamil-Us-Sana*, *Kitab Al-Mukhtarat Fit-Tib*, *Zakhira Kharzam Shahi*, *Al Qanoon-Fil-Tibb*, *Al-Hawi-Fit-Tib*, *Tibb-e-Akbar*, *Tazkeera-Jaleel* and from databases like, Google Scholar, Pub Med, and Science Direct.

Concept of PCOS in Unani Medicine

Classical Unani texts, including *Al-QanoonFil-Tibb* by *IbnSina* and *Zakheera Khvarazm Shahi* by *Ismail Jurjani*, provide insights into endocrine disorders. *Rhazi* described the treatment methods of various endocrinological disorders in *Kitab-Al-Hawi-Fit-Tib* like diabetes, impotence, galactorrhea, menstrual irregularities, sex organs, contraception and obesity [14, 15, 16].

According to *SahebKamil*, the age of menarche ranges between 10-14 years, while menopause occurs between 36-60 years. The duration of menstruation typically lasts between 2-7 days, with an intermenstrual interval ranging from 20 days to 2 months. If the menstrual cycle exceeds this duration, the condition is referred to as *ehtebase Tams* (Amenorrhea) [17, 18]. These early contributions highlight the relevance of Unani principles in modern endocrinology. According to *Ali Ibn Abbas Majoosi*, an altered temperament of the liver, particularly when it becomes *Barid* (Cold), impairs its ability to transform chyme into, blood disrupt this process leads to the production of tenacious *balgham* (Phlegm). He also identified *samanmufrit* (Obesity) as a contributing factor for *ehtebase tams* (Amenorrhea), attributing it to reduced blood flow and narrowing of blood vessels due to increases

viscosity of blood as a result of *Su-e-MizajBaridBalghami*. This abnormal *balgham* accumulates within the body, altering the temperament and manifesting as symptoms such as *ehtebase tams* (Amenorrhea), *qillate tams* (Oligomenorrhea), *uqr* (Infertility), *samanmufrit* (Obesity) and hirsutism [17, 18]. This seems very similar to the clinical conditions associated with contemporary diagnosis of PCOS.

Pathophysiology

Su-e-Mizaj is derangement in the body's constitution whereas *Su-e-MizajBaridBalghami* indicates imbalance in the cold temperament. *Su-e-MizajBarid* (Derangement of cold temperament) is a term that describes when an imbalance in an organ's temperament develops, sign and symptoms. *Su-e-MizajBaridBalghami* (Derangement of cold temperament) of the liver may lead to abnormal production of *balgham* (Phlegm). One of the abnormal forms of *Balgham* is *balghamayi*, which is much diluted in consistency and possesses a tendency to accumulate in a sac to form cysts and manifest as *ehtebase tams* (Amenorrhea), *qillate tams* (Oligomenorrhea), *uqr* (Infertility), *samanmufrit* (Obesity), hirsutism and hoarseness of voice [17, 18, 22].

Causative Factors

Su-ul-Qinyah (Anemia), *Sue-Mijaz-Barid* (Derangement of cold temperament), *Sue-Mijaz-Meda* (Morbid temperament of stomach) can lead to abnormal *kailus* (Chyme) formation and reduce production of *Akhlal* (Humours), *Sue MijazBaridJigar* (Cold morbid temperament of liver), *ZofeJigar* (Debility of liver), alteration in *Asbab-e-SittaZarooriayh* (Six prerequisites for existence), *Zoaf-e-Kabid* (Debility of liver), *Zoaf-e-Tihal* (Splenic debility), *Zoaf-e-Gurdah* (Renal debility), *Zoaf-e-quwwatedafea* (weakness of expulsive faculty) and *Zoaf-e-quwwateMumayyeza* (Weakness of discriminative faculty), *Qillat-e-HarkatBadani* (Sedentary life), *GhairTabayilIstefragh* (Excessive evacuation) from other ways such as epistaxis, hemorrhoids, Abortion, healed lesion of cervix, *Rataq* (Cryptomenorrhea), *Inqilaburrahem* (Prolapse of uterus), Obesity [18, 19, 20].

Complications

Iktenakhuurrahem (hysteria), *Selanurrahem* (leucorrhoea), *Uqr* (infertility), *Auram-Ehsa* (inflammation of viscera), *Sara* (epilepsy), *Suda* (headach), *Malenkhulia* (*Melancholia*), *Falij* (paralysis), *Zeequnnafas* (bronchial asthma), *Istisqa* (ascities), *Zofe-Hazam* (delayed digestion), and *Suqooteisteha* (anorexia), *Gisyan* (nausea), hirsutism, hoarseness of voice, high grade fever, renal and liver diseases [21, 23].

Principles of Usool-e-Ilaj (Treatment) In the Unani System of Medicine for PCOS

The Unani system of medicine emphasizes restoring health by modifying the *AsbabSittaZarooriya* (Six essential prerequisites for life) and treatment follows a comprehensive approach, often referred to as the Black Box Design, combining various therapeutic modalities [20]: such as

IlajbilGhiza (Dietotherapy)

IlajbilDawa (Pharmacotherapy)

IlajbilTadbeer (Regimental Therapy)

IlajbilGhiza (Dietotherapy)

Dietotherapy is a cornerstone of Unani treatment and often serves as the first line of therapy. PCOS is a disease of cold temperament, thus a therapeutic diet should be hot in temperament and *Jayyad-ul-Qaimus* (good chyme forming)

diet e.g. *baizaneemBarasht* (Half boiled yolk of egg), *Shorba* (soup), *Buzgala meat* (Mutton) [21].

IlajbilDawa (Pharmacotherapy)

In Unani System of Medicine, pharmacotherapy consists of single and compound drugs. Single drugs are selected as per *Mizaj* (Temperament) of drugs as opposed the *Su-e-Mizaj* (abnormal constitution) of disease and their pathology and which is used either single form or as a prescription of more than one drug in the form of *Joshandah* (Decoction), *Kheshandah* (Infusion), *Safoof* (Powder). Unani Physician described various drugs (Single and compound prescription) and their composition which has *HarYabisMizaj* (Hot and dry constitution) and acts as a diuretic, emmenagogue, deobstruent, anti-inflammatory, hepatoprotective, antioxidant, and immunomodulatory activities which balance the humor [22]. Principle of treatment of PCOS is based on *tadeelmizaj* (Moderation of temperament) with use of *munzijwamushilbalgham* (Concoctive and purgative), *MufattehSudad* (Deobstruent) *mulattifat* (Demulscent), and *mudirehaiz* drugs (Emmenagogue) [19, 22, 23].

MunzijBalgham (Phlegm concoctive) drugs

These drugs help in eliminating excessive *phlegm* from the body, thereby improving the metabolic function. Some key herbs used in this category include Anisoon (*Pimpinellaanisum*), BeekhBadiyan (*Root of Foeniculumvulgare*), BeekhKibr (*Root of Capparisspinosa*), Eersa (*Iris ensata*), Izkhar (*Andropogonschoenanthus*), Zoofa (*Hyssopusofficinalis*) Pudina (*Menthapiperita*), Sudaab (*Rutagraveolans*), Baranjasif (*Artemisia vulgaris*), Marzanjosh (*Origanumvulgare*) [12, 13, 18, 20, 21].

MushilBalgam drugs (purgative of phlegm)

These herbs facilitate the expulsion of excess of *Phlegm* and are commonly prescribed for *phlegmatic* disorders such as AyarijFeekirah (*Aloe barbadensis*), Turbud (*Ipomoea Turpethum*), Aftimoon (*Cuscutareflexa*), and Gareeqoon (*Polyporusofficinalis*) [13, 18, 20, 21].

MufattehSudad (Deobstruent), Mulattifat (Demulscent), and Mudire--Haiz (Emmenagogue)

MufattehSudad (Deobstruent) and *mulattifat* (demulscent) remove blockages from vessels of body, while emmenagogues augment menstrual flow. The following herbs have been traditionally employed in Unani medicine for these purposes, Abhal (*Juniperuscommunis*) Majeth (*Rubiaccordifolia*), PudinaNehri (*Menthalongifolia*), PudinaKohi (*Menthasyvestris*), Afsanteen (*Artemisia absinthium*), Kibr (*Capparisspinosa*), Sauf (*Foeniculumvulgare*), Karafs (*Apiumgraveolns*), Anisoon (*Pimpinellaanisum*), Suddab (*Rutagraveolens*), Zarawind (*Aristolochiaindica*), Eersa (*Iris ensata*), Asaroon (*Asarumeuropaeum*), Izkhar (*Andropogonschoenanthus*), Qust (*Saussurealappa*), Habbul-Gar(*Eugenia jambolana*), Darchini (*Cinnamomumzeylanicum*), Javitri (*Myristicafragrans*), Murmakki (*Commiphoramyrtha*), Junbedastar (*Castoreum*), Indrayana (*Citrulluscolocynthis*), Kalonji (*Nigella sativa*). These herbs are known for their circulatory stimulant, anti-inflammatory, and uterine tonic and help in ameliorating amenorrhea [20, 21, 22, 23].

Compound Formulations in Unani Medicine

Unani physicians have formulated various polyherbal preparations based on clinical experience to manage *Su-e-*

Mizaj Barid Balgami (Derangement of cold temperament), phlegm related disorders, and menstrual irregularities. Some commonly used compound formulations include: *Logaziya*, *Qurs Murmukki*, *Habbe Ayarij*, *Sharbat Afsanteen*, *Majoon Dabeedulward*, *Itrifal Ghududi*, *Habbe Mudir*, *Joshanda Mudir Haiz*, *Sharbat Buzoori*, *Majoon Muqawwi Rehm*, *Murakkabate Faulad*, *Qurs Abhal*, *Majoon Abhal*, *Sharbat Saleekha*, *Naqu-Buzoori*, *Arq-e- mako* and *Arq-e-Kasni*. These formulations exhibit synergistic effects, improving blood circulation, reducing obstructions, and modulating hormonal balance [13, 20, 22, 23, 24].

Unani medicine provides a rich repository of herbal formulations for managing phlegmatic disorders and menstrual irregularities. The pharmacological potential of these herbs and compound drugs suggests their significant therapeutic value. Further research through pharmacological and clinical studies is needed to validate their efficacy and standardize their usage.

IlajbilTadbeer (Regimental therapy)

Regimental therapy is a method of treatment to improve the constitution of body by removing waste materials and improving the defense mechanism of the body and protect health. Some specific tadabeer are beneficial for PCOS. These tadabeer restore the balance in the temperament through *Imala* (Transference) and *tanqiyaemavad* (Evacuation of matter). Such as *riyazat* (Exercise), *takmeed* (Fomentation), *humul* (Pessary), *bakhoor* (Fumigation), *aabzan* (Seitz bath), *fasd* (Vensation), *hijama* (Cupping) [25, 26].

Takmeed (Fomentation)

Fomentation with *Afadiya* (Aromatic drugs) such as Balchad (*Nardostachysjatamansi*), Jaifal (*Myristicafragrans*), Darchini (*Cinnamon Zylanicum*), Elaichi (*Elettaria Cardamomum*), Qust (*Saussurealappa*), and Aqaqiya (*Acacia arabica*) is recognized for its emmenagogue properties. The decoction of these herbs is used for fomentation or massage to the umbilical area to alleviate amenorrhea [21, 23].

Humul (pessary)

Pessaries containing Ghafis (*Gentiana Olivieri*), Indrayn (*Citrulluscolocynthis*), Hiteet (*Ferula asaefoetida*), Jaoeer (*Opopanax Chironium*), Jundebedastar (*Castoreum*), Murmakki (*Commiphoramyrtha*), Pudina (*Menthapiperita*), Abhal (*Juniperuscommunis* Linn), Suddab (*Rutagraveolens*), Maveez Munaqqa (*Vitisvinifera*), and decoction of Afsanteen (*Artemisia Absinthium* Linn.) are used as potent emmenagogue agents. These pessaries facilitate menstrual flow by their direct action on the uterus [21, 27].

Bakhoor (Fumigation)

This therapy involves the use of Indrayn (*Citrulluscolocynthis*), Jao Sheer (*Ferula galbanum*), and Sakbeenaj (*Ferula Persica* Wild.) as fumigants, are believed to have a stimulating effect on the female reproductive system and initiation of menstruation [19, 20, 21, 22].

Aabzan (Seitz bath)

Seitz baths prepared with Shibbat (*Anithumsowa*), Marzanjosh (*Origanum Vulgare*), Pudina (*Menthapiperita*), Suddab (*Rutagraveolens*), and Mushktaramashi (*Menthepulegium*) are recommended. *Allama Antaki* specifically highlights Shibbat (*Anithumsowa*) as a significant therapeutic agent for female genitourinary disorders. Regular use of Seitz baths with herbal decoctions is believed to be effective in treating all

uterine diseases, including amenorrhea [16, 19, 20, 21, 22].

Fasad (Venesection/bloodletting)

Venesection of the popliteal and saphenous veins is considered beneficial in treating amenorrhea by balancing humors and improving blood circulation to the reproductive organs [16, 19, 20, 21, 22].

Hijamah-bil-Shurt(wet cupping)

Wet cupping therapy applied to the calf muscles on alternate days, followed by the administration of emmenagogue drug decoction, and is practiced in Unani medicine to regulate the menstrual cycle [16, 19, 20, 21, 22].

Riyazat (Exercise)

Riyazat (Physical exercise) plays a crucial role in maintaining overall health and reducing the risk of ailments. It prevents the accumulation of morbid substances in the body and facilitates the *tahleel* (Metabolism) of toxins. Regular physical activity helps protect the body from diseases by enhancing physiological functions [28].

Furthermore, *riyazat* aids in the efficient removal of waste products through natural excretory pathways, thereby promoting internal humoral balance. It also stimulates *hararat-e-gharizia* (Innate heat), which is essential for optimal metabolic function. Additionally, it strengthens *quwat-e-dafia* (Evacuating faculty) and *quwat-e-hazima* (Digestive faculty), thereby improving digestion and overall wellbeing.

Discussion

In the Unani system, health is maintained by the balance of the four humors, *dam* (blood), *balgham* (Phlegm), *saфра* (Yellow bile), and *sauda* (black bile) [1-2]. PCOS is primarily linked to an excess of *balgham*, which accumulates due to altered *Mizaj* (*Temperament*) of the liver and reproductive organs. The disruption of hormonal imbalances and dyspepsia can lead to ovarian cyst formation and metabolic disturbances. The *Su-e-MizajBarid* (Derangement of cold temperament) of the liver and uterus results in excessive production of *balghammayi*, a diluted and pathogenic form of phlegm that accumulates within ovarian follicles, leading to development of cyst [8, 9].

Clinical manifestations such as *ehbase tams* (amenorrhea), *qillate tams* (oligomenorrhea), *uqr* (infertility), *samanmufrit* (obesity), *hirsutism* and hoarseness of voice with the Unani concept of phlegmatic dominance [8, 9, 12, 13]. Unani scholars emphasize the role of *asbab-e-sittahzarooriya* (six essential factors) in disease progression, including diet, lifestyle, environmental factors, psychological stress, sleep patterns, and physical activity. An imbalance in these factors contributes to the pathological accumulation of *balgham*, exacerbating PCOS symptoms [18, 19, 20]. Management in Unani medicine involves *Ilajbil Tadbeer* (Regimenal therapy), *Ilajbil Ghiza* (Dietotherapy), and *Ilajbil Dawa* (Pharmacotherapy) [21, 22, 23]. Herbal formulations with, *munzij* (Concoctive), and *mushil* (Purgative), *mufattehsudad* (Deobstruent) and *mulattifat* (Demulscent) such as *Asaroon* (*Asarumeuropaeum*), *Anisoon* (*Pimpinellaanisum*), *Abhal* (*Juniperuscommunis*), *Afsanteen* (*Artemisia absinthium*) *BeekhBadiyan* (*Root of Foeniculumvulgare*), *Baranjasif* (*Artemisia vulgaris*), *BeekhKibr* (*Root of Capparisspinosa*), *Darchini* (*Cinnamomumzeylanicum*), *Eersa* (*Iris ensata*), *Indrayana* (*Citrulluscolocynthis*), *Habbul-Gar* (*Eugenia jambolana*), *Izkhari* (*Andropogonschoenanthus*), *Junbedastar*

(*Castoreum*), *Javitri* (*Myristicafragrans*), *Kalonji* (*Nigella sativa*), *Pudina* (*Menthapiperita*), *PudinaNehri* (*Menthalongifolia*), *Pudina Kohi* (*Menthasylyvestris*), *Majeth* (*Rubiaccordifolia*), *Karafs* (*Apiumgraveolns*), *Murmakki* (*Commiphoramyrtha*), *Qust* (*Saussurealappa*), *Suddab* (*Rutagraveolens*), *Sauf* (*Foeniculumvulgare*), *Zarawind* (*Aristolochiaindica*), *Zoofa* (*Hyssopusofficinalis*) are prescribed to eliminate excessive *balgham* and restore normal reproductive function [20, 21, 22, 23]. Therapies such as *hijamah* (Cupping), and *riyazat* (Exercise) are employed to restore humoral balance [16, 19, 20, 21, 22, 25, 26, 28]. Dietary interventions aim to reduce phlegmatic dominance by incorporating warm and dry foods while avoiding cold and moist substances [21].

Conclusion

The Unani system provides a comprehensive understanding of PCOS, emphasizing the role of *Mizaj and Akhlat* in disease pathogenesis. The concept of *balghammayi* accumulation offers a humoral explanation for the cyst formations observed in PCOS. Unani therapeutics focuses on restoring humoral equilibrium through lifestyle modifications, dietary regulations, and herbal interventions. Integrating Unani principles with modern medical insights may offer a holistic approach to managing PCOS, providing alternative therapeutic avenues for affected individuals. Further research is needed to validate Unani treatments through clinical studies and explore their potential in contemporary healthcare.

Acknowledgement

Authors are grateful to all those who have directly or indirectly helped in writing this manuscript.

Conflict of Interest

The author declare that they have no known competing financial interests or personal relationship that could have appeared to influence the work reported in this paper.

References

- Ganie MA, et al. Prevalence, phenotypes and comorbidities of polycystic ovary syndrome among Indian women. JAMA Netw Open. 2024;7(10):1-15.
- Witchel SF, Oberfield SE, Peña AS. Polycystic ovary syndrome: pathophysiology, presentation and treatment with emphasis on adolescent girls. J Endocr Soc. 2019;3(8):1545-73.
- Dason ES, Koshkina O, Chan C, Sobel M. Diagnosis and management of polycystic ovarian syndrome. CMAJ. 2024;193(8):85-94.
- Akre S, Sharma K, Hakole S, Wanjar MB. Recent advances in the management of polycystic ovary syndrome. Open Access Rev Artic. 2022;14(8):10-5.
- Bulsara J, Patel P, Soni A, Acharya S. A review: brief insight into polycystic ovarian syndrome. Endocr Metab Sci. 2021;3(30):100085.
- Parveen A, et al. Concepts and quality considerations in Unani system of medicine. J AOAC Int. 2020;103(3):609.
- Alam M, et al. Understanding hormones in terms of humours (Akhlat) in Unani system of medicine. J Complement Integ Med. 2020, 1-9.
- Parveen A, Ahmad M, Parveen B, Parveen R, Iqbal M. The traditional system of Unani medicine, its origin, evolution and Indianisation: A critical appraisal. Indian J Tradit Knowl. 2022;21(3):511-521.
- Firdose K, Shameem I. An approach to the management

- of polycystic ovarian disease in Unani system of medicine: a review. *Int. J Appl Res.* 2016;2(6):585-90.
10. Shamsad N, Ahmad S. Efficacy of Unani medicine in hemorrhagic ovarian cyst. *Int. J Unani Integr Med.* 2024;8(3):39-42.
 11. Khan AB, Begum S, Mustafa S. Polycystic ovarian syndrome from Greeko-Arab to the present. *World J Pharm Med Res.* 2018;4(4):68-72.
 12. Khan AA, Begum W. Efficacy of Darchini in the management of polycystic ovarian syndrome: A randomized clinical study. *J Herb Med.* 2018, 15.
 13. Shameem I, Khatoon R. An overview of polycystic ovarian disease associated secondary amenorrhoea in Unani system of medicine. *Int J Sci Res.* 2018;7(10):318-324.
 14. Zakaria AMB. *Kitab-Al-Hawi* (Urdu translation). New Delhi: Central Council for Research in Unani Medicine, Ministry of Health & Family Welfare, Govt of India; 2001. p. 1-120.
 15. Sina SI. *Al-Qanoon Fil-Tib*, Vol. III. New Delhi: Idara Kitab-us-Shifa; 2010. p. 26-35.
 16. Jurjani A. *Zakhira Kharzam Shahi*, Vol. I. Urdu translation by Hakeem Hadi Husain Khan Saheb; 2010. p. 598-602.
 17. Majoosi AIA. *Kamilus-sana*, Vol. II. New Delhi: Idara Kitab-us-Shifa; p. 680-699.
 18. Khan A. *Al-Akseer* (Urdu translation by Kabeeruddin). New Delhi: Idara Kitab-us-Shifa; 2011. p. 797-801.
 19. Bagdadi IBH. *Kitab Al-Mukhtarat Fit-Tib*, Part IV. New Delhi: Central Council for Research in Unani Medicine, Ministry of Health & Family Welfare, Govt of India; 2005. p. 22-30.
 20. Sofi G, Ahmad W, Alam A, Zulkiflie M. Understanding holism in the light of principle underlying practice of Unani medicine. *Rev Environ Health.* 2021;37(2):189-199.
 21. Baig MG, Quamri MA, Alam AM, Khan MS. *Ilaj bil Ghiza* (dietotherapy): a core principle of Unani treatment. *J Biol Sci Opin.* 2015;3(1):52-56.
 22. Alam MA, Quanri MA, Sofi G, Tarique B. Understanding hypothyroidism in Unani medicine. *J Integr Med.* 2019, 1-5.
 23. Jameel S, Zeenat F, Mustafa S. Scientific appraisal of plant origin emmenagogue and its therapeutics in Unani medicine: a review. *Int J Herb Med.* 2023;11(6):3-9.
 24. Rashid A, Tahseen Z, Tabassum G. Role of Unani drugs in PCOS: A case report. *Indian J Integr Med.* 2022;23(9):10-12.
 25. Uddin S, Nuri ZN. Preventive and curative method of treatment: regimental therapy: A review. *Int. J Unani Integr Med.* 2021;5(2):41-47.
 26. Ansari AP. *Ilaj bil-Tadbir* (Regimenal therapy): a core mode of Unani treatment. *J COMPLEMENT Integr Med.* 2021;18(3):449-458.
 27. Jaleel HH. *Tazkira Jaleel*. New Delhi: Central Council of Research in Unani Medicine, Ministry of Health and Family Welfare, Govt of India; 2010. p. 347-349.
 28. Azhar M, Anjum N. Concept and management of Saman-e-Mufirat (obesity) in Unani medicine. *Indian J Integr Med.* 2019;1(1):8-13.