Clinical Intervention of Unani Medicine in case of Infertility (Uqr) due to Polycystic Ovarian Disease (Marz-e-AkhysKusytur Rahem)-A Systematic Clinical & Meta Analysis

Dr. B. Mazharunnisa[1*], Dr. Malik Tauheed Ahmed [2], Dr. Amreen Begum [3],Dr. Khan Sumayya Abdul Razzak [4], Dr. Daniya Wazeef Momin [5], Dr. N.S. Kareemunnisa[6]

*[1] AssociateProfessor, Dept. of Amraz-e-Niswan wa Qabalat (Gynecology & Obstetrics), Dr. Abdul Huq Unani Medical college and Hospital, Kurnool. AndhraPardesh (India)

[2] Professor & HOD, Dept. of Ilmul-Saidla,Yunus Fazlani Medical college & Hospital, Kunjkheda, Kannad, Sambhaji Nagar. Maharashtra (India)

[3] Assistant Professor, Dept. of Amraze Niswan-wa-Qabalat, Govt. Nizamia Tibbi College & Hospital Hyderabad, Telangana (India)

[4] Assistant Professor, Dept. of Amraz-e-Ain AnfHalaquewa Asnan, Dr. M. I. J. Tibbia Unani Medical College & H.A. R. Kalsekar Hospital, Mumbai (India)

[5]Associate Professor & HOD, Dept. of Amraz-e-AtfalwaNaumaulood, Dr. M. I. J. Tibbia Unani Medical College & H.A. R. Kalsekar Hospital, Mumbai (India)

[6] Associate Professor, Dept. of Amraz-e-Niswan wa Qabalat (Gynecology & Obstetrics)

Dr. Abdul Huq Unani Medical college and Hospital, Kurnool. Andhra Pardesh (India)

ABSTRACT

Infertility (Uqr) is a foremost reproductive healthiness issue distressing nearly 10–15% of couples worldwide, and Polycystic Ovarian Disease is one of the most common causes of anovulatory infertility in women of reproductive age. PCOD is associated with hormonal imbalance, irregular menstruation, obesity, and hirsutism, leading to ovulatory dysfunction. According to Unani medicine, infertility due to PCOD is described under Ihtibas-al-Tams (retention or suppression of menses) and is primarily caused by Sue Mizaj Barid Balghami (cold and phlegmatic temperament) that leads to uterine coldness, sluggishness, and impaired ovarian function. To evaluate the clinical efficacy and safety of Unani formulations in improving ovulation, menstrual regularity, and conception rates in patients suffering from infertility due to PCOD. Treatment was administered for three consecutive menstrual cycles, and patients were monitored for ovulation by ultrasonography (USG), along with hormonal assays and clinical symptom assessment.Most patients belonged to the 21–30-year age group (73.3%), and the highest incidence of infertility was observed among those with 4–6 years of married life. In Group A, 13 out of 15 patients (86.67%) exhibited ovulation with complete normalization of menstrual cycles, and 7 patients conceived during the study period. Group B showed ovulation in 10 patients (66.67%), with 4 conceptions. Improvement in menstrual regularity was achieved in all cases of both groups, while symptoms like hirsutism and obesity showed partial improvement. No adverse effects were reported in either group, confirming the safety and tolerability of the treatment. The study establishes that Unani formulations are effective in treating infertility due to PCOD, particularly by inducing ovulation and restoring menstrual regularity. The Group A formulation showed superior efficacy, likely due to its emmenagogue, aphrodisiac, deobstruent, and uterine tonic properties, which align with the Unani principles of Taqwiyat-e-Rahem (uterine tonicity) and E'tidal-e-Mizaj (restoration of temperamental balance). These results support the traditional Unani approach as a natural, holistic, and cost-effective alternative to conventional hormonal therapies..

Keywords: *Infertility,Uqr, Polycystic Ovarian Disease, Unani Medicine, Ovulation, Menstrual irregularity*

How to Cite: Dr. B. Mazharunnisa, Dr. Malik Tauheed Ahmed , Dr. Amreen Begum ,Dr. Khan Sumayya Abdul Razzak , Dr. Daniya Wazeef Momin , Dr. N.S. Kareemunnisa, (2024) Clinical Intervention of Unani Medicine in case of Infertility (Uqr) due to Polycystic Ovarian Disease (Marz-e-AkhysKusytur Rahem)-A Systematic Clinical & Meta Analysis., *Journal of Carcinogenesis, Vol.23, No.1*, 182-194.

1. INTRODUCTION

Infertility is a chronic illness that causes medical as well as social and financial problem. It is the state of inability to conceive after a period of unprotected and regular intercourse for one year.It is a complex problem for 1 in 6 couples. The

incidence of this disease is 10%–15%. The causes of infertility are female, pelvic, ovarian, tubal, uterine, cervical, and unexplained. Cervical mucus is a necessary component of human fertility two critically important physiological roles in fertility. First, cervical mucus is essential and sperm survival and transport. The duration of the fertile window is six days in couples of normal fertility: the day of ovulation. Without fertile mucus sperm would last only hours in the vagina with little chance of meeting and fertilizing the egg (ovum). Second, cervical mucus has been described as a ―biological valve, admitting sperm to the uterus at certain times of the cycle while inhibiting their entranceat other times. During the pre-ovulatory phase of the cycle and under the influence of estrogen, cervical mucus forms parallel channels that allow sperm to traverse the cervix and then to swim up to the fallopian tubes: the biological valvecervical mucusis literally open.In the post-ovulatory phase and under the influence of progesterone, cervical mucus is thick (with a cobblestone‖ appearance under the microscope) and blocks the passage

of sperm into the uterus: the biological valve of cervical mucus is closed. According to Unani concepts, alteration in four humours of body and alteration in uterine temperament or hard texture of uterine inner layer or whole uterus undergo in hard texture due to absorption of phlegmatic fluid in the uterus or abnormal bile and black bile, irregular menstrual cycles, cervical infections, congenital abnormalities, anovulatory cycles, cervical infections, and sexually transmitted diseases are common causes of infertility in females.

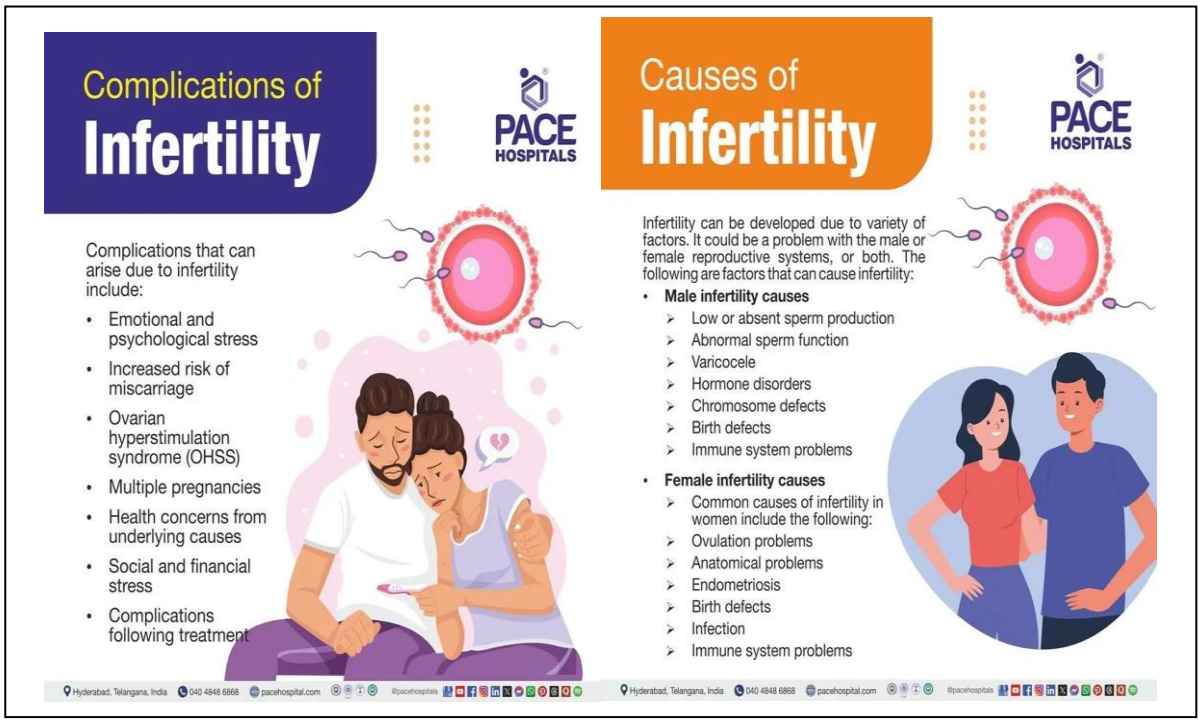
Further, eminent ancient physicians mentioned that infertility due to cervical mucus is caused by temperament changes due to usage of cold beverages. Alteration in the temperament of uterus such as su'emizajhar-yabis (hot & dry) causes cervical secretion scanty, su'emizajbaridratab (cold and moist) causes cervix cold and dense forming thick, tenacious balgam (abnormal phlegm). The cervical mucus is directly affected by ovarian hormones and its study can be used as a reliable predictor of sperm penetration. the post-intercourse collection of mucus shortly before the time of ovulation and a few to several hours after intercourse. The mucus specimen is evaluated for pH, clarity, cellularity, viscosity (the length to which a column of mucus can be stretched in centimeters also known as spinnbarkeit), salinity (evaluated according to the number of channels formed by the crystallization of the mucus when dried on a glass slide also known as ferning) and the number and motility of surviving sperm. Though there have been major advances in the treatment of infertility in modern medicine like IVF,IUI, etc. when compared to other systems of medicine, the infertility caused due to cervical factor has no treatment. In Unani medicine, the response in cervical factor infertility has been mentioned in the classical texts. Further, these medicines are safe and having no side effects as compared to modern medicine. Therefore, the aim of this pilot study

was to appraise the usefulness of Unani treatment in infertility due to cervical mucus factor.

Infertility-Historical background:

Kanun Papyrus (2200-1950 BC) is the world oldest medical text describes gynecologicaldiseases; methods used for the detection of fertility and 17 prescriptions for infertility.

The ancient Egyptians describe infertility as a disruption in the continuity between the reproductive organs and digestive tract and diagnosis was made on physical examination. 3. Hippocrates (460-377 BC) mentioned, “women whose



menstruation is less than three days or is meager, robust, with a healthy complexion and a masculine appearance; they will not become pregnant.” He was aware of connection between oligomenorrhoea, obesity, hirsutism and infertility.

Soranus of Ephesus (98-138 AD) observed that “sometimes it is also natural not to menstruate at all.It is natural too in persons whose bodies are of a masculine type. we observe that the majority of those not menstruating are rather robust, like mannish and sterile women” This statement is suggestive of PCOS (amenorrhea, obesity, hirsutism and infertility).

Rofas (98-171AD) mentioned that obese women fail to conceive due to dominance of khiltbalgham, even if they conceive risk of abortion or difficult labor is associated with them.

Ibn Sina (980-1037AD) mentioned in his treatise that obese women could not conceive easily, even if they conceive there is high risk of abortion.

Majoosi (930-994 AD) mentioned that if temperament of women becomes cold, it causes zo’afejigar as a result liver is unable to convert chyme into blood, in its place convert it into tenacious phlegm which is the major cause of Amenorrhoea. Obesity causes zo’afejigar and excessive production of phlegm which causes narrowing of blood vessels and reduces blood supply to the uterus leading to Amenorrhoea and infertility.

J. Lisfranc (1830) first described polycystic ovaries.

Achard and Theirs (1921) gave the first description of the relationship between androgen excess in women and disturbance in carbohydrate metabolism, highlighting the presence of polycystic ovaries.

Irving Stein and Michael Leventhal (1935) published a case series of 7 women with amenorrhea, hirsutism and bilateral polycystic ovaries, a condition that later came to be known as polycystic ovary syndrome.

Concept of PCOS in Unani Medicine

The most prevalent endocrine disorder affecting women of reproductive age is polycystic ovarian disease (PCOD), which is also the leading cause of anovulation-induced infertility. Five to ten percent of women of reproductive age have PCOD, and the percentage rises to fifteen percent among infertile women. This illness has been explained by renowned Unani physician in the classical literature under the areas of liver problems, phlegmatic illness, obesity, and amenorrhea. Various medical options are used to treat subfertility associated with polycystic ovarian disease. This narrative review was

conducted to provide an update and summarize the available evidence on management of polycystic ovarian disease related to infertility. A wide literature search was performed and preferably randomized controlled trial are included. Management is centered on lifestyle changes and Unani pharmacological ovulation induction. The primary foundation of the Unani idea of PCOD is the predominance of khilt-e-balgham, or phlegm. Phlegm production has been linked to the main symptoms of PCOD, including obesity, oligomenorrhea, and amenorrhea. Therefore, it is asserted that PCOD results from the body's preponderance of phlegm, which causes obesity, amenorrhea, and ovarian cyst formation. This condition is complicated since it can lead to consequences such as endometrial and breast cancer, metabolic syndrome, type 2 diabetes, infertility, and cardiovascular diseases. There is now no effective treatment for this complex illness, and patients typically receive only symptomatic care with hormones and insulin sensitizers before developing a medication dependence. In this case study, we will look at an Unani approach in the management of Infertility with Polycystic Ovarian Disease. We also go over new data about herbal medications' impact on insulin resistance in PCOD.

In Unani literature the features of polycystic ovarian syndrome are described by many Unani physicians. They wrote about causes, clinical features, complication and management of disease similar to the polycystic ovarian disease or syndrome. Abu bin Zakaria Razi (864-930AD) in his book Al hawi said that amenorrhea is caused by ghaleez or baridkhilt that causes obesity and hormonal imbalance in women. Jalinoos said that hirsutism occurs in those women who have more blood vessels and less muscles. Sheikh Bu Ali Sina in his book Alqanoon Fit Tib wrote that amenorrhea is caused by ghaleez or balghamikhilt which leads to obesity and infertility.

Pharmacognosy of Drugs:

Ustukhuddoos Ustukhuddoos Lavandula stoechas Linn. belongs to Lamiaceae / Labiatae family	Kasir-e-Riyah, Mufatteh, Munzij, Muhallil (Resolvent), Mulattif, Muqawwi, Munaqqi, Jaroob-e-Dimag, Daf-e-Sauda, Da-fe-Tashannuj, Mufarrah e-Qalb-Wa-Dimagh, Muqaww-i-Aasab	
B. Gule Tisu Gul-e-Tisu, is flower of Butea monosperma (Lam.)	Waram-e-Masana (Cystitis), Waja ul-Masana (Cystodynia), Waram-e-Rahem (Metritis), Usr al-Bawl, Ihtibas-e-Bool, Ihtibase-Tams,Waram-e-Khusyatayn Sozak	
C. Gauozaban Gaozaban (Borago officinalis L.) of the family Boraginaceae	antidepressant, anxiolytic, antioxidant, antidiarrheal, antibacterial, antifungal, antiaging, anti-asthmatic, anticancer, wound healing &memory booster.	

Musli Safed. Safed musli is a rare herb from India. It is used in traditional systems of medicine Ayurveda, Unani.	Cancer.conceive, Diabetes, Diarrhea.Erectile dysfunction.Gonorrhea., Increasing sexual desire	
Musli Siyah Kali or Shyah-Musali, it botanical name Curculigoorchioides and belongs to the Hypoxidaceae family.	spermatogenic, aphrodisiac actions improving sexual dysfunction. aphrodisiac help to correct male sexual problems and promote stamina	
Afsanateen Afsanteenis the name for Artemisia absinthium, commonly known as wormwood.	Gall bladder problems, and intestinal spasms. Parasitic, infections: anthelmintic, Anti-inflammatory and pain relief, anti-inflammatory properties.fever, hepatitis	
AftimoonVilaiti Aftimoon (Cuscuta reflexa), a member of Convolvulaceae family	antioxidant, anti-inflammatory, anticancer, hepatoprotective, and neuroprotective activities.hepatitis, palpitations, varicose veins, epilepsy and depression	
SadabKhusk Sudabkhushk is likely a reference to dried rue, with the scientific name *Ruta chalepensis.*	Antimicrobial and antifungal Anti-inflammatory and pain reliefto reducearthritis, headaches, and joint pain. Digestive and antispasmodicin the gastrointestinal tract and to aid digestion	

AsgandNagori "AsgandhNagori" refers to Ashwagandha root, Unani medicine for its adaptogenic properties	Stress & anxiety, Energy and vitality, improve sexual function and fertility, Inflammation and pain: like arthritis.	
Khulunjan	Respiratory health, Digestive health,Pain and inflammation antimicrobial and anti-infective properties against bacteria, viruses, and fungi. Boosts immunity:	
Bozidan Bozidan scientifically identified as *Tanacetum umbelliferum*, is used as a herbal remedy	Diabetes management, Antioxidant properties nerve pain & gout.Sexual debility:spermatorrhoea, involuntary ejaculation and leucorrhea. Anthelmintic	

2. MATERIALS AND METHODS

Methodology: -The study is carried out in outpatient department, post graduate department of obstetrics &gynecology, Nizamia General Hospital Charminar Hyderabad.

Selection of Patients: -This study has been conducted on 30 patients of Infertility due to PCOD in three years duration of post-graduation on the basis of complete history, general examination, hormonal & ultra sound evaluated cases of PCOD with following inclusion & exclusion criteria.

Inclusion criteria: -

Females with age group between 20 to 35 years.

Female in the reproductive age group with at least one year of normal sexual life.

Females with duration of married life 2 years.

Female of primary as well as secondary infertility & secondary infertility associated with first trimester abortion.

Females with infertility dysfunctional uterine bleeding. due to PCOD

Females whose husbands were fertile (normal sperm count)

Exclusion criteria: -

Females with congenital anomalies or anatomical causes like vaginal atresia, narrow introitus elongated cervix, scarring of cervix, infantile uterus, hypoplastic etc. Females with surgical causes for infertility like PID, polyp, cervicitis, carcinoma of vagina, cervix endometrium, tubo-ovarian masses, tubal block etc. Women whose husbands were infertile & women who are not living with their husband.

Study design: It was an observational study all the patients came with

Complaint of infertility and irregular menstrual cycle in O.P.D of N>G>H were thoroughly counseled a detailed history about age, duration of infertility, duration of marriage, rhythm & pattern of menstrual cycle marital status, contraception, vaginal discharge part incidence of conception and abortion, dietary habits & drugs taken were recorded. A part from general examination a specific emphasis was given to examination of pelvis P/S & P/V examination to assess uterine size, shape, mobility to rule out surgical cause & congenital anomaly.

According to need of patients, they were investigated routine base line examination both partners were advised i.e., C.B.P, CUE, RBS, VDRL, ESR, Blood grouping & Rh typing, in addition male partner was also advised semen analysis. They were investigated to rule out systemic diseases like hypertension, diabetes mellitus, tuberculosis, anemia for both partners. Female partner was advised hormonal assay like FSH, LH. 3rd day of M.C, serum prolactin, serum insulin, serum DHEA & serum. Progesterone is advised on 21 days of menstrual cycle & USG. Endometrial biopsy is done between 23rd to 28th day of menstrual cycle. On the basis of these examination & investigation 30 patients of infertility due to PCOD were selected for clinical trial,

Selection of drugs: -

Patients divided into two groups A & B. 15 patients were administered with group 'A' medicines & other 15 patients were administered with group 'B' medicine for three months consecutively, three months follow up, the drugs having the properties of insulin sensitizers emmenagogues, deobstruent, resolvent, Hepatotoxic, aphrodisiac, exhilarant &coctives were selected.

Planned sexual intercourse was recommended around the time of ovulation (i.e., alternate day during 9th to 21st day of menstrual cycle). HSG for tubal black. All the patients were followed up every month in OPD when they were re-examined for follicular study for ovulation starting from 9th day of menstrual cycle.

Method of drug administration

Both groups of drugs were given according to days of menstrual cycle. Both groups contain oral medicines (powdered, decoction) form.

Group 'A' Decoction;-

Ustukhuddoos -5g

Gaouzaban -5g

Gule-tisu -5g

The above drugs were taken in equal quantities & made them in decoction form.

Preparation:- Make the above drug into a course powder soak 15 grams in a 200 ml of water at night, next morning boiled & concentrated t 100ml & filtered. 100ml is given in two divided doses i.e. morning & evening Dosage: -Empty stomach. From 1 day of period to 10th day.

Powdered: -

Mooslisafed

Mooslisiya

The above drugs were taken in equal quantities & make them fine. powder

Dosage; -

10 grams power is to be given in two divided doses i.e., morning & evening after meal from 5th day of periods to 12th day of periods.

Group 'B' Decoction;-

Aftimoon

Afsanateen

SadabKhusk

The above drugs were taken in equal quantity & made them in decoction form.

Preparation:- Make the above drugs in a course powder soak 15 grams in 200ml of water at night next morning boil & concentrated to 100 ml & filtered.

Dosage; 100 ml is given in two divided doses i.e. morning & evening, from 1st day of period to 5th day of period.

Sufoof or powder:-

Khulan Jan

Bozidan

Asgand

Preparation: The above drugs should be taken in equal quantity & powdered finely. Then mix all the powder thoroughly. Dosage: 9 grams powder is to be given in three divided doses i.e., morning afternoon & evening from 5th day of periods to 25th day of periods.

Instructions: -

The patients were instructed to report for follow up over fortnight.

Decreased consumption of carbohydrates, fats and all spicy food.

Exercises and increased physical activities.

Advice on discharge: -

To review on 1st day of menstruation

To consult immediately if any untoward effect occurs.

High protein and fibrous diet

If the cycle does not occur on the expected date, silently wait for days.

Observation & Results:

Table No. 01 Age wise distribution of Patient Group A and B

S. No	Age	Group A	Group B	No. of cases	Percentage %
1	15-20	2	3	5	16.67
2	21-25	6	6	12	40
3	26-30	4	6	10	33.33
4	31-35	3	0	3	10
Total		15	15	30	100

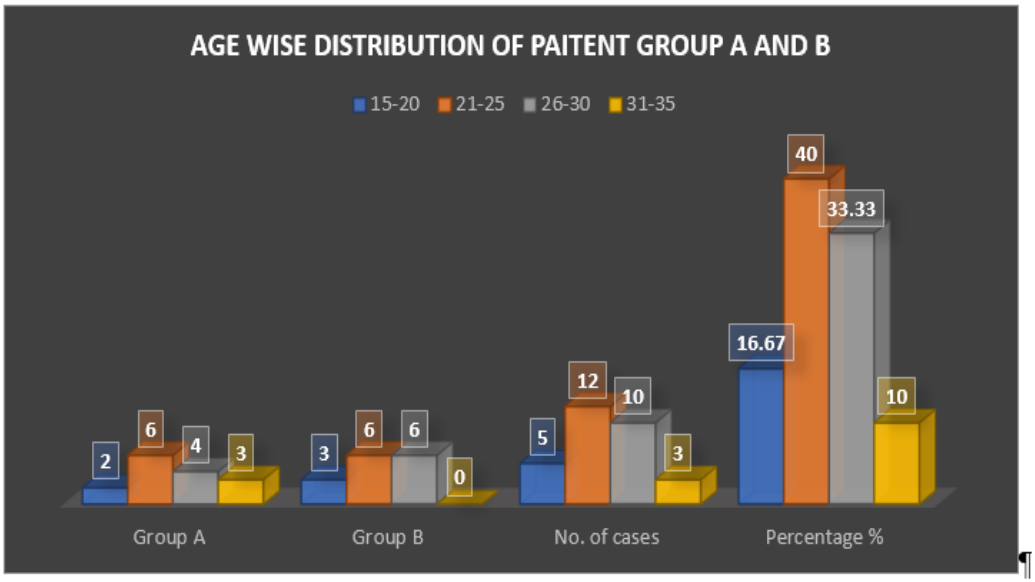
In the above table shows that highest number of cases belong to age group 15 to 30 years i.e. 27 cases in group 'A'&'B'. Lowest number of cases belong to age group 31-35years i.e. three cases in both groups.

.

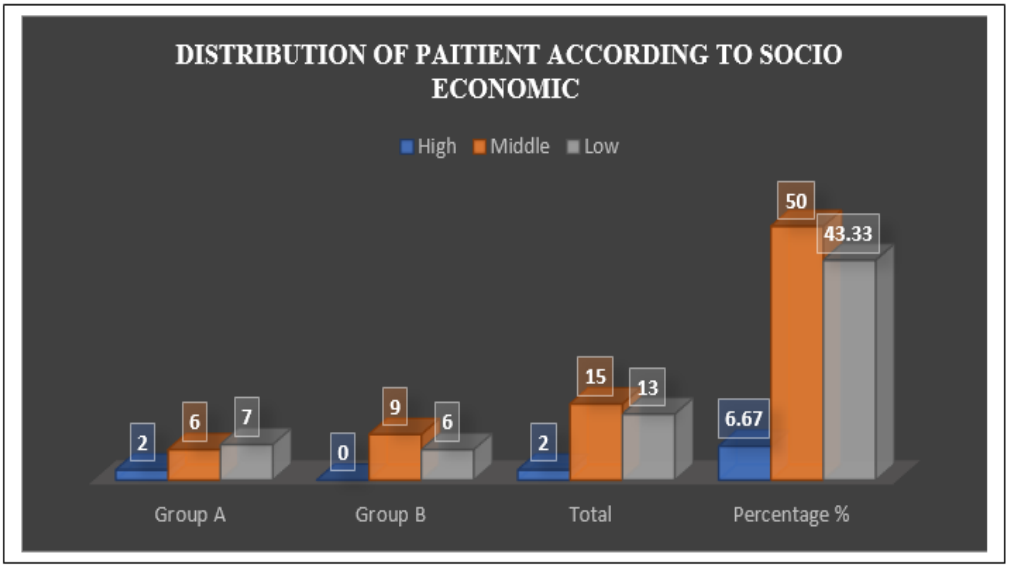
Table. 02 Distribution of patient according to socio economic

S. No	Socio economic status	Group A	Group B	Total	Percentage %
1	High	2	0	2	6.67
2	Middle	6	9	15	50
3	Low	7	6	13	43.33
Total		15	15	30	100

Graph No. 01 Age wise distribution of Patient Group A and B



Graph No. 02Distribution of patient according to socio economic



In the above table highest incidence was found in middle income group 15 cases, &13 cases in low-income group respectively, & lowest number in high income group i.e 4 cases in both group 'A '& 'B'.

Graph. 03Distribution of patient according to Marriage life

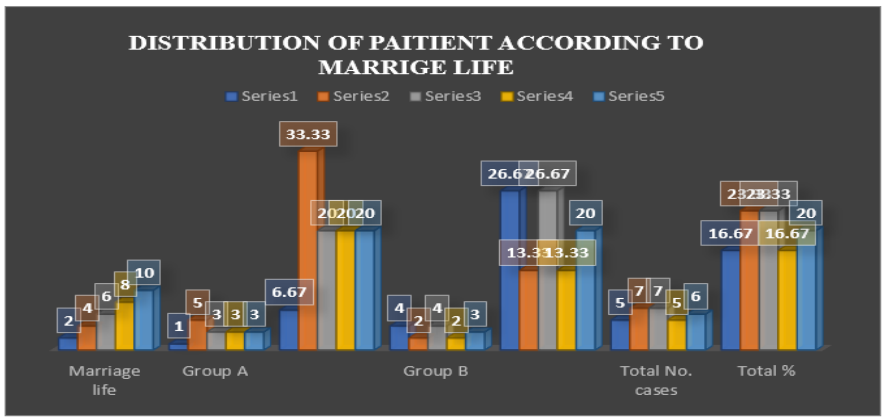


Table. 03 Distribution of patient according to Marriage life

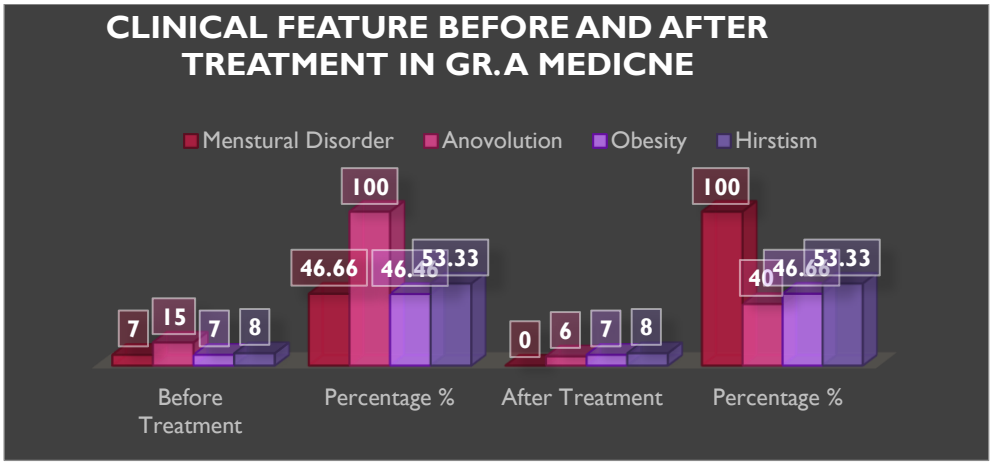
S. No	Marriage life	Group A		Group B		Total No. cases	Total %
		No. Cases	%	No. cases	%		
1	2	1	6.67	4	26.67	5	16.67
2	4	5	33.33	2	13.33	7	23.33
3	6	3	20	4	26.67	7	23.33
4	8	3	20	2	13.33	5	16.67
5	10	3	20	3	20	6	20
Total		15	100	15	100	30	100

In the above table shows that incidence of infertility due to PCOD according to duration of married life was highest in 4years i.e. 5 cases (33.3%)in group "A" & 6years of married life i.e 4 cases (26.67%) in group "B" respectively, lowest incidence in 6-10 years of married life in group "A" & lowest incidence in group "B" is 4 & 8 & 10 years of married life.

Table. 04 Clinical feature Before and after Treatment in Gr. A Medicine

Clinical Feature	Before Treatment	Percentage %	After Treatment	Percentage %
Menstrual Disorder	15	100	0	100
Anovulation	15	100	2	86.67
Obesity	6	40	6	40
Hirsutism	6	40	6	40

Graph No. 4 Clinical feature Before and after Treatment in Gr. A Medicine

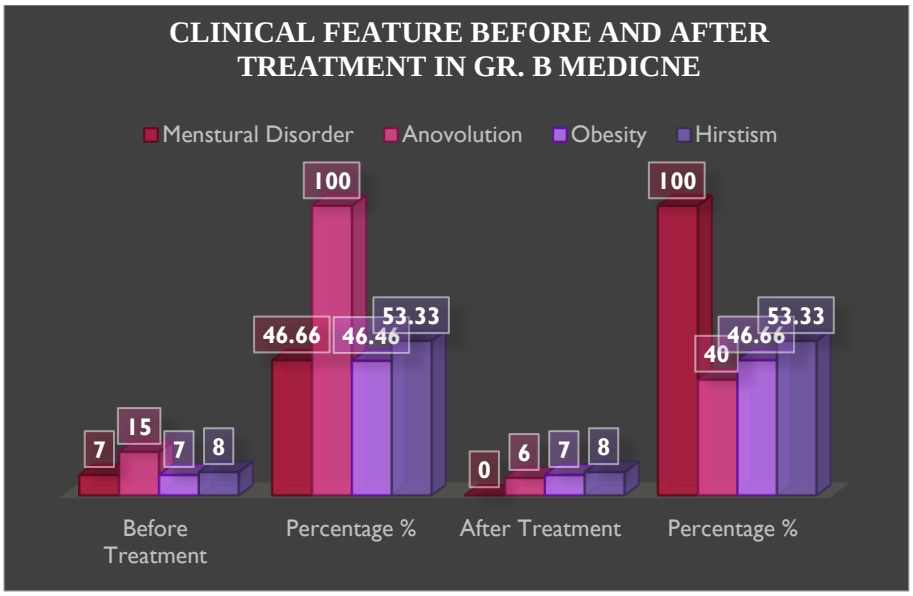


It's clear in the above table that almost all the 15 cases are menstrual disorder & anovulation. 13 cases (93.33%) are responded well to the treatment except one case in which the menstrual cycle is regular but no ovulatory cycle because had increased serum insulin level & 6 cases reported with hirsutism showed no new growth of hair follicles, but hirsute pattern persisted as before which actually required cosmetic treatment. 6 cases had H/O weight gain & all of them respond well no further wt. gain.15 cases had infertility due to PCOD which was seen 7 cases fertile to treatment.

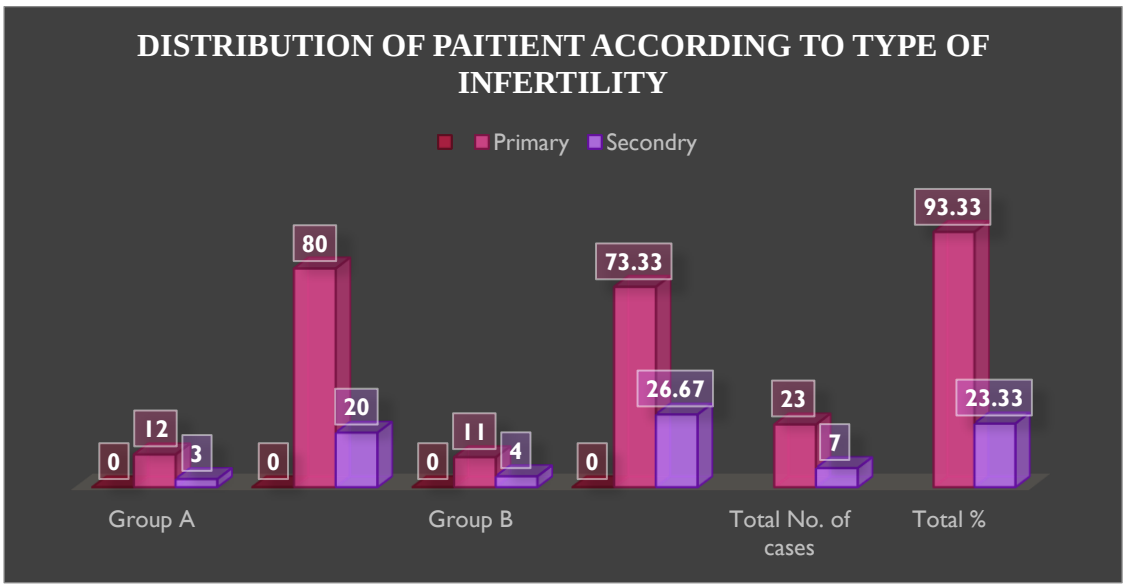
Table. 05 Clinical feature Before and after Treatment in Gr. B Medicine

Clinical Feature	Before Treatment	Percentage %	After Treatment	Percentage %
Menstrual Disorder	7	46.66	0	100
Anovulation	15	100	6	40
Obesity	7	46.46	7	46.66
Hirsutism	8	53.33	8	53.33

Graph. 05 Clinical feature Before and after Treatment in Gr. B Medicine



In the above table shows the almost all the 15 cases are anovulatory 10 cases are respond well except five cases are no ovulatory cycle, because had increased serum insulin level & 7 cases are menstrual disorder almost all cases responded well to treatment, 8 cases are reported with hirsutism shows no new growth of hair follicles but the hirsute pattern persisted as before,7 cases had H/O wt. gain & all of them respond well no further wt. gain 15 cases had infertile (primary &secondary) which after treatment was seen only four cases fertile,remaining 10 cases are PCO cured & one patient had increased serum DHEA & increased serum insulin.



Graph No. 06Distribution of Patient according to Type of infertility

Table 06 Distribution of Patient according to Type of infertility

No	Type of infertility	Group A		Group B		Total No. of cases	Total %
		No. cases	%	No. of cases	%		
1	Primary	12	80	11	73.33	23	93.33
2	Secondary	3	20	4	26.67	7	23.33
	Total	15	100	15	100	30	100

In the above table it was observed that PCOD was found to highest in 23 cases (76.67%) in primary infertility & 7 cases (23) secondary infertility respectively

3. DISCUSSION:

The present clinical study was designed to evaluate the efficacy of Unani formulations in the management of infertility (Uqr) due to Polycystic Ovarian Disease one of the leading causes of anovulatory infertility among women of reproductive age. PCOD is characterized by hormonal imbalance, menstrual irregularities, anovulation, obesity, and hyperandrogenism, which together contribute to reproductive dysfunction. From the Unani perspective, this condition corresponds to Ihtibas-e-Tams (suppression or retention of menses), primarily caused by Sue Mizaj Barid Balghami (cold and phlegmatic temperament), resulting in sluggish uterine activity, impaired follicular maturation, and disturbed humoral balance.

In this study, 30 female patients aged between 20–35 years were included and divided into two treatment groups. Group A received Ustukhuddoos (Lavandula stoechas), Gaouzaban (Borago officinalis), Gule-Tisu (Butea monosperma) as

decoction, and Musli Safed (Chlorophytum borivilianum) and Musli Siyah (Curculigoorchioides) as powder, while Group B received Aftimoon (Cuscuta reflexa), Afsanteen (Artemisia absinthium), and Sadab Khushk (Ruta chalepensis) as decoction, and Khulanjan (Alpinia galanga), Bozidan (Tanacetum umbelliferum), and AsgandhNagori (Withania somnifera) as powder. The formulations were chosen based on their pharmacological and Unani actions—including Mudirr-e-Haiz (emmenagogue), Mufatteh-e-Sudad (deobstruent), Muqawwi-e-Rahem (uterine tonic), Muwallid-e-Mani (ovulation enhancer), and Muhallil-e-Warm (anti-inflammatory) properties.

The demographic findings showed that the majority of patients belonged to the 21–30-year age group (73.3%), the most active reproductive phase, and the highest incidence was seen in women with 4–6 years of married life. Most patients exhibited Balghami temperament, consistent with Unani theory, which attributes cold and moist humors as the underlying cause of ovulatory disorders and menstrual suppression.

The therapeutic results demonstrated that Group A exhibited superior efficacy compared to Group B. In Group A, 86.67% of patients ovulated, with 7 conceptions during the treatment period. Group B also showed significant improvement, with 66.67% ovulation and 4 conceptions. The higher response in Group A can be attributed to the combined action of Ustukhuddoos, Gaouzaban, Gule-Tisu, Musli Safed, and Musli Siyah, which act synergistically to regulate hormones, enhance follicular development, improve uterine blood flow, and strengthen reproductive tissues. The emmenagogue and aphrodisiac actions of these ingredients promote ovulation and normalize menstrual patterns, while their nutritive and tonic properties enhance reproductive vitality.

Ustukhuddoos acts as a nervine tonic and endocrine regulator, improving hypothalamic-pituitary-ovarian axis function. Gaouzaban and Gule-Tisu serve as blood purifiers and deobstruents, facilitating proper hormonal secretions and menstrual flow. Musli Safed and Musli Siyah are potent aphrodisiacs and uterine tonics, enhancing ovarian responsiveness and promoting conception. In contrast, the herbs used in Group B, such as Aftimoon, Afsanteen, and Asgandh Nagori, provided metabolic and hormonal balance through their hepatoprotective, anti-inflammatory, and insulin-sensitizing effects, helping to manage insulin resistancea common feature of PCOD. However, the absence of potent uterine tonics in Group B may explain its relatively lower conception rate.The absence of adverse effects in both groups demonstrates the safety and tolerability of Unani herbal formulations. Compared to synthetic ovulation-inducing agents like clomiphene citrate, which may cause ovarian hyperstimulation, multiple pregnancies, or hormonal side effects, Unani medicine offers a holistic, gentle, and balanced approach that restores natural physiology without disturbing systemic harmony.The results of this study are consistent with Unani classical teachings, which emphasize the correction of Sue Mizaj (temperamental imbalance), removal of obstructions (Tafteeh-e-Sudad), strengthening of uterine tone (Taqwiyat-e-Rahem), and restoration of humoral balance (E-Tedal-e-Akhlat) for achieving fertility. The study also aligns with modern scientific evidence supporting the ovulation-inducing and hormonal-regulating potential of herbs such as Lavandula stoechas, Curculigoorchioides, and Withania somnifera.In summary, the findings validate the Unani principle that restoring temperamental balance and strengthening the reproductive system can effectively reverse infertility caused by PCOD. The superior outcomes observed in Group A highlight the benefits of formulations combining emmenagogue, uterine tonic, and aphrodisiac herbs for faster and sustained ovulatory response.Hence, the study concludes that Unani medicine provides a natural, safe, and cost-effective approach to managing infertility due to PCOD. Further large-scale, randomized, and controlled studies with hormonal and metabolic profiling are recommended to confirm these results, establish standard dosage regimens, and integrate Unani treatments into mainstream reproductive healthcare.

4. CONCLUSION:

The present clinical study concludes that Unani formulations are highly effective, safe, and well-tolerated in the management of infertility (Uqr) caused by Polycystic Ovarian Disease (PCOD). The study demonstrated that Unani drugs not only induce ovulation but also help in restoring menstrual regularity, improving conception rates, and correcting hormonal imbalance, which are the key therapeutic goals in anovulatory infertility.Between the two treatment regimens, Group A—which received Ustukhuddoos (Lavandula stoechas), Gaouzaban (Borago officinalis), Gule-Tisu (Butea monosperma), Musli Safed (Chlorophytum borivilianum), and Musli Siyah (Curculigoorchioides)showed superior efficacy, with 86.67% ovulatory response and 7 conceptions during the study period. Group B, which included Aftimoon (Cuscuta reflexa), Afsanteen (Artemisia absinthium), Sadab Khushk (Ruta chalepensis), Khulanjan (Alpinia galanga), Bozidan (Tanacetum umbelliferum), and AsgandhNagori (Withania somnifera), also showed significant improvement, though with a comparatively lower ovulatory and conception rate.The superior results observed in Group A can be attributed to the synergistic actions of its ingredients, which possess emmenagogue (Mudirr-e-Haiz), aphrodisiac (Muwallid-e-Mani), uterine tonic (Muqawwi-e-Rahem), deobstruent (Mufatteh-e-Sudad), and anti-inflammatory (Muhallil-e-Waram) properties. These pharmacological effects are in line with Unani principles of Taqwiyat-e-Rahem (strengthening of the uterus) and E‘Tedal-e-Mizaj (restoration of temperamental balance), both essential for normal reproductive functioning.No adverse effects were recorded in either group, confirming the safety, tolerability, and cost-effectiveness of Unani formulations compared to modern hormonal therapies, which are often associated with side effects such as ovarian hyperstimulation, mood disturbances, and metabolic disorders.Therefore, the study validates that Unani medicine offers a holistic, natural, and scientifically rational approach to treating infertility due to PCOD. The therapeutic

success achieved through the restoration of humoral balance and reproductive vitality reflects the integrative and preventive strength of the Unani system. Further large-scale, randomized clinical trials and hormonal studies are recommended to substantiate these findings, standardize dosage regimens, and explore the long-term benefits of Unani formulations in the management of infertility and women's reproductive health

REFERENCES

[1] Dawn C.S, Text book of gynecology.
[2] Abid Hussain, Moalijat-e-Sedidi.
[3] dams,J. Multifollicular Ovaries.
[4] Ali Bin. Rabbon Tabri, Firdous-ul-Hikmat
[5] Avicenna, Cannon of Medicine
[6] Azme MD Khan, Akseer-e-Azam.
[7] Goldmann, Bennett, Text book of Medicine.
[8] Chopra, Indigenous Plants of India.
[9] Baker T. G., Reproduction in Mammals.
[10] Dhar et al, Indian Journal Experimental Biology.
[11] Ali Bin Abbas Majoosi, Tarjuma-e-kamilusSana.
[12] Harsh Mohan, Text Book of Pathology.
[13] Henderson Simon, Recent advances in gynecology & obstetrics.
[14] Ismail Bin Hasan Jurjani, Zakheera-e-khawazim Shahi.
[15] Kabeeruddin, MakhzanuladviaKhawasulAdvia.
[16] Kabeeruddin, Biyaz-e-kabeer
[17] Khursheed Ahmed Shafaqat Azeemi, Amraz-ul-Nisa.
[18] Kirtikar& Basu, Indian medicinal plant.
[19] Samson Wright, Applied physiology.
[20] Zakaria Razi, Kitabul Havi Fit-e-Tib.
[21] Syed Mohd Abbas Razvi, Nisaiyath.
[22] HK. S.M. Abdul Razzack, Talimul Qabila.
[23] HK. Vaseem Ahmed Azmi, Amraz-e-Niswan.
[24] . www.unani.com
[25] .www.botonical.com
[26] .www.tabeebhakeem.com
[27] .www.pcosupport.org
[28] .www.womenshealthpc.com
[29] .www.google.com
[30] .www.plantslist.htm
[31] .www.mamma.com
[32] .www.fertilityfoundation.org.com
[33] .www.unaniherbalism.com
[34] .www.sffertility.com
[35] .www.ferti-net.com
[36] .www.e-gynecologic.com..