

**AN ILLUSTRATED CLINICAL STUDY & THERAPEUTICS RESPONSES OF UNANI
FORMULATION IN INDUCTION OF OVULATION (TASHJEE-E-BAIZA / BAIZA
AWARI)- A RANDOMIZED CONTROLLED STUDY****Dr. N. S. Kareemunnisa^{*1}, Dr. B. Mazharunnisa²**

^{*1,2}Associate Professor, Dept. of Amraz-e-Niswan wa Qabalat (Gynecology & Obstetrics),
Dr. Abdul Huq Unani Medical College and Hospital, Kurnool. Andhra Pradesh (Bharat).

***Corresponding Author: Dr. N. S. Kareemunnisa**

Associate Professor, Dept. of Amraz-e-Niswan wa Qabalat (Gynecology & Obstetrics), Dr. Abdul Huq Unani
Medical College and Hospital, Kurnool. Andhra Pradesh (Bharat). <https://doi.org/10.5281/zenodo.17617259>

How to cite this Article: Dr. N. S. Kareemunnisa^{*}, Dr. B. Mazharunnisa (2025). An Illustrated Clinical Study & Therapeutics
Responses Of Unani Formulation In Induction of Ovulation (Tashjee-E-Baiza / Baiza Awari)- A Randomized Controlled Study.
European Journal of Pharmaceutical and Medical Research, 12(5), XX-XX.

This work is licensed under Creative Commons Attribution 4.0 International license.



Article Received on 21/03/2025

Article Revised on 11/04/2025

Article Published on 01/05/2025

ABSTRACT

Infertility, known as Uqr in Unani medicine, remains a significant reproductive health issue, with anovulation being one of its leading causes. Ovulation induction plays a crucial role in the management of anovulatory infertility, and the Unani system of medicine offers effective, natural, and safe approaches for restoring ovulation through Muwallid-e-Mani (ovulation-inducing) and Muqawwi-e-Rahem (uterine strengthening) drugs. This study aimed to evaluate the clinical efficacy of selected Unani formulations in the induction of ovulation and management of female infertility due to anovulatory cycles, while minimizing the side effects commonly associated with conventional hormonal therapies. A randomized controlled clinical study was conducted on 40 female patients aged 20–40 years, diagnosed with anovulatory infertility, at Nizamia General Hospital, Hyderabad. Group A: Received Saleb Mesri (Orchis mascula), Tukhm-e-Gazar (Daucus carota), Kaiphal (Myrica nagi), Tudari Surkh (Matthiola incana) orally, along with Roghan-e-Chambeli (Jasminum grandiflorum) and Safaidi Beiza-e-Murgh (egg white) as Humool (pessary) for 5 days per cycle. Group B: Received Bahman Sufaid (Centaurea behen), Inderjow Shereen (Wrightia tinctoria), Ushba Daisi (Hemidesmus indicus), and Khand Siyah (jaggery) orally for 10 days per cycle. Treatment continued for three consecutive menstrual cycles, with ultrasonographic follicular monitoring to assess ovulation and conception outcomes. In Group A, ovulation occurred in 95% of cases, with conception in 5% after the first cycle, 45% after the second cycle, and 15% after the third cycle. Group B showed 75% ovulatory response, with 10% conception in the first cycle, 25% in the second, and 10% in the third, while 15% remained anovulatory. Improvement in endometrial thickness and follicular development was observed in both groups, particularly in Group A. The study confirms that Unani formulations effectively induce ovulation and enhance fertility potential in women with anovulatory cycles, primarily through their aphrodisiac, hormonal, deobstruent, uterine tonic, and nutritive actions.

KEYWORDS: Infertility; Uqr; Anovulation; Ovulation induction; Unani medicine; Muwallid-e-Mani; Humool.

I. INTRODUCTION

Ovulation induction as can be understood by the name is a process of stimulation of ovulation in females with the help of medication. This procedure plays a significant role in the treatment of infertility in the females. we have adequately trained and vastly experienced doctors who provide the female patients with the proper ovulation induction service so that they are able to overcome the

grief of their infertility and conceive. The process is generally used for the purpose of stimulating the development of the follicles of the ovaries and to reverse the effect of anovulation (no ovulation) or oligo ovulation (irregular or few ovulation). In an addition to this, the process is also done to trigger the release of oocyte from the follicles of the ovaries which are relatively mature.

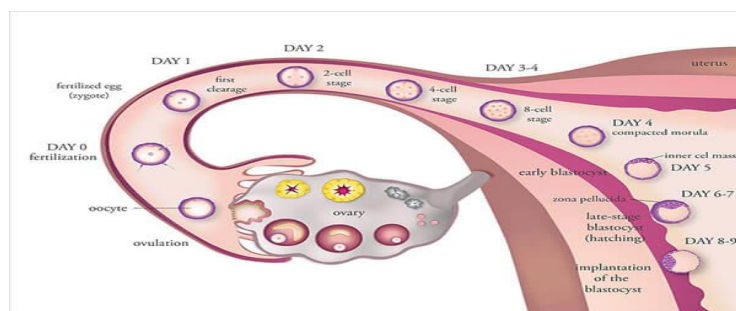


Fig. 01 Systematic Diagram of Induction of Ovulation.

Ovulation induction is perfectly suited to the females who produce extremely low levels for the necessary hormones for ovulation. The process is also ideally suited for women who are not at all ovulating but have a perfectly normal fallopian tubes along with the male partner having a normal semen analysis. In these situations, it would be a very good idea to go for the process of ovulation induction. The ovulation induction is carried out by experienced doctors in a stepwise manner which are as discussed below.

- At the beginning, the doctors will assess the ovulation cycle of the woman with some blood tests for measuring the levels of hormone at the specific stages of the cycle. The doctor also conducts an ultrasound test for getting a clear idea about the development of the ovarian follicles along with the thickness and appearance of the lining of the uterus.
- The second step of the process is the stimulation of the ovaries with the help of specific medications for promoting follicular growth which contains eggs.
- The specialists at KARE make sure to provide the best suited medication or a proper combination of **Ovulation Induction medicines** for the same based on the situation.
- The next step is of monitoring where the ovulation cycle is closely monitored with the help of ultrasound and blood tests for checking the size as well as the number of developing follicles. This monitoring is quite important for the reduction of risks of multiple pregnancies.
- Finally, when the female is very near to her ovulation cycle, advise the ideally suited day to have sexual intercourse for the maximization of chances of a pregnancy or conduct an intrauterine insemination. This timely intercourse of artificial insemination helps in conception.

Ovulation induction typically involves the following process

1. **Initial consultation with a City Fertility Specialist:** When you first meet with a fertility specialist you will undergo fertility testing that includes blood tests to assess ovulation and hormone levels. Your doctor may recommend ovulation induction as a first treatment. Ovulation induction is not suitable for everyone. This treatment depends on factors such as a woman's age, medical diagnosis, and the results of the initial semen analysis.

2. **Stimulation:** Ovarian stimulation involves taking oral medication or follicle stimulating hormone (FSH) injections at the start of your period to stimulate the ovaries to encourage the growth of multiple follicles containing eggs.
3. **Control & Monitoring:** Your fertility specialist will closely monitor your ovarian response during the stimulation phase with ultrasounds and/or blood tests. This is important as ovulation induction medication is powerful. This means your medication may need to be adjusted to control the size and number of follicles and to reduce the risk of multiple pregnancies.
5. **Egg release – ovulation:** When the follicles are mature, you will take an intramuscular injection of Human Chorionic Gonadotrophin (hCG) in preparation for intercourse or intra-uterine insemination (IUI).
6. **Timed sexual intercourse or IUI:** A pelvic ultrasound is performed near ovulation time to show us the developing follicles and indicate the best day to have sex and maximize the chances of pregnancy.

II. PATHOLOGY OF INFERTILITY

In Unani medicine, the pathology of infertility, known as Uqr, is based on the system's core principles, primarily involving imbalances in the body's four humors (Akhlāt) and improper temperament (Mizāj). These imbalances can cause deficiencies or abnormalities in the reproductive organs, semen (Mani), or ovum.

A. Core pathological concepts

- **Humoral imbalance (Su'i Mizāj):** The Unani system attributes health to a perfect balance of the four humors: blood (dam), phlegm (balgham), yellow bile (safra), and black bile (sauda). An imbalance, such as an excess of coldness (baroodath) and phlegm, is seen as a primary cause of infertility. This imbalance can weaken the retentive power (quwa) of the uterus and impair reproductive function.
- **Weakness of organs (Zoaf-e-aaza):** A weakness in the reproductive organs, such as the uterus, ovaries, or testes, is a key pathological factor. This can be due to poor nourishment from the humors or an overall lack of vital force (Hararat-e-Ghariziya).
- **Obstructions (Suddad):** Blockages in the reproductive tract, such as in the uterus or fallopian

tubes, can prevent conception. These obstructions often result from an accumulation of morbid matter (fasid mawadd), particularly from an excess of phlegm.

B. Pathology in female infertility

In Unani, female infertility is termed Uqr-e-Niswan. Pathological causes include

- Structural and congenital abnormalities: Conditions such as a small-sized uterus (rahim) or ovaries, or a closed external cervical opening (os), can cause infertility.
- Diseases of the uterus (Amraaz-e-Rahim):
 - Inflammation of the uterus (Metritis).
 - Inversion of the uterus.
 - Uterine tumors (Waram al-Sulb).
- Menstrual disorders
 - Amenorrhea (Ihtibas-e-Tams): This is often linked to a predominance of phlegm (khilt-i-balgham) and an increase in the viscosity of menstrual blood (khun-i-hayd), which can lead to obstructions (suddad).
 - Polymenorrhea.
- Other general diseases: Systemic complications from conditions like anemia, syphilis, or gonorrhea can also impair female fertility.
- Obesity (Siman mufrit): Excess weight is categorized as a phlegmatic disease (balghami marz). It is associated with infertility through a chain of pathologies:
 - Liver dysfunction (zo'af-e-jigar).
 - Obstruction of the liver (sudda jigar).
 - Abnormal temperament of the uterus (su'i mizaj-e-rahim).
- Weakened reproductive faculty (zo'afe quwwat-e-tawlade mani), leading to impaired ovarian function and chronic anovulation.
- Psychological stress: Mental and emotional imbalances are seen as factors that negatively impact fertility by disrupting overall body balance.

C. Pathology in male infertility

In Unani, male infertility is often linked to seminal abnormalities, categorized as Qillat-e-Mani (deficient semen) and Riqqat-e-Mani (fluid semen). Pathological causes include

- Seminal disorders (Amraz-e-Mani): Deficiencies or defects in semen (mani), including reduced quantity (Qillat-e-Mani) and altered quality or fluidity (Riqqat-e-Mani).
- Hormonal imbalances: Unani medicine recognizes the role of hormonal regulation in fertility, and imbalances can be a contributing factor.
- Infections: Sexually transmitted infections or other infections can damage the reproductive system and impair sperm production and quality.
- Lifestyle factors: Habits such as smoking, excessive alcohol, drug use, and obesity can negatively impact male fertility by disrupting the body's natural balance.

Unani literature also recognizes "unexplained" or idiopathic infertility, often termed "Khaqi banjpan". In such cases, Unani practitioners may focus on identifying subtler, unseen humoral or temperamental imbalances that conventional diagnostics might miss, such as Su'i Mizaj-e-Rahem (adverse uterine temperament) or an excess of khilt-e-balgham.

III. AIM AND OBJECTIVES OF THE STUDY

Failure to ovulate is a major problem in reproduction disorders. It is a main cause of infertility. The infertile women and the anovulatory cycle are clinical problems which can now be successfully treated. My objective here is to review the concept of Unani system of Medicine. To trace out the anovulatory cycle cases and provide the induction with Unani drugs with least or without side effects and prevents further complications.

IV. MATERIAL AND METHODS

The patients visiting outpatient Department of Nizamia General Hospital. Charminar were screen and about 40 established cases of infertility due to anovulatory cycle were selected for present study.

A. CRITERIA FOR THE SELECTION OF PATIENTS

The female with anovulatory cycles aged between 20-40 years and 1-12 years of married life were selected. At patient's first visit the following investigation were carried out.

INVESTIGATIONS

CBP, ESR, RBS, VDRL, CUE for both partners]
Semen analysis [for male partner]
FSH, LH, PROLACTIN, T3, T4, TSH & USG for pelvic and Transvaginal Sonography for follicular study was done for conformation of ovulation and HSG for tubal patency. [for female partner]
The cases that fulfill the above conditions were selected for the selected cases were divided into 2 groups for the allotment of treatment group 'A' and 'B' alternatively to compare the efficacy of the coded drugs.

B. GYNAECOLOGICAL EXAMINATION

Inspection/Palpation: vulva, condition of hymen
Per vaginum: vagina, cervix, length of cervix uterine size, position, mobility. fornices.
Examination
Condition of the cervix
Discharge
Quantity
Colour
Consistency
Odours

Investigations: for both partners: CUE, CBP, ESR, VDRL, RBS.

For Female

Hormonal assay: FSH, LH, Serum progesterone

Thyroid function test: T3, T4, TSH

Sonography: follicular study

Before treatment and after treatment

Date Day of menstrual cycle Domennet follicle

Endometrial thickness

Rt. ovary Lt ovary size.

Duration of treatment:

Group 'A' 10 days for oral and 5 days for Humool [pessary]

Group 'B' 10 days for oral.

Treatment

The patients were treated with group 'A' medicine, oral for 10 days from 3rd day of menstrual cycle to 12th day and Humool [pessary] from 5th to 9th day of MC. patients were instructed to undergo for follicular study from 12th day till ovulation occurred. If the patient did not get ovulation in I cycle, the same procedure followed for follicular study. If the patients get ovulation in 1 cycle or 2 cycle, the above treatment stopped, if not ovulated the same treatment and procedure has been continued for 3rd cycle.

C. SELECTION OF DRUGS

The drugs selected for clinical trials, after a concentration study of the disease and its management described by the ancient physician and their experience. The drugs selected for the present study were economical, easily available, low cost.

Drugs Ingredients

The drugs selected for the clinical trials for this study are divided in to two groups they are:

- group 'A'
- group 'B'

The ingredients of each group are given below.

Group 'A': For oral administration:

- Salebmesri 4 grams
- Tukham-e-Gazar 4 grams
- Kaiphal 4 grams
- Tudari surq 4 grams

Preparation and Administration

The above drugs were taken in equal quantities and made them in powder form.

Dosage: 5grams of powder three times a day was given for 10 days from third day of MC to twelfth day of MC.

For Humool

- Roghan-e-chambeli: 5ml
- Sufaidi-Baiza-e-Murgh.

Preparation and administration: 5ml of the Roghan-e-Chambeli with Safaidi-Beiza c-Murgh these both drugs were mixed thoroughly, and a sterilized cotton swab with a thread is dipped in the above preparation and inserted into the vagina in posterior formix., for 5 days, from fifth day to ninth day of MC.

Group 'B': for oral administration

- Bahaman-e-sufaid: 4 grams
- Inderjow shereen : 4 grams
- Ushba Daisi 4 grams
- Khand siya kohana : 4 grams.

Preparation and administration: All the above 4 drugs were made in fine powder from and given orally 5 grams three times a day from 3d day of MC to 12th day of MC. 'B' group patients were treated with only oral drugs.

Pharmacognosy of drugs

A. Orchis Masculula. (SALAB MISRI)

It is a root of herb, which usually found in Rome, Afghanistan & Egypt. Shape of the root is triangular which resemble as "Suranjaan".

Colour: Whitish Yellow

Temperament: - Hot 1 & Wet 1

Parts used: Tubers and Fecula of the roots are used in medicine.

Chemistry or Constituents

Tubers contain a glycoside, a bitter substance, starch 27%, mucilage 48% Sugar, albumen, a trace of volatile oil and ash consisting chiefly of phosphate and chlorides, potassium and lime. The most important, constituents are mucilage and Starch.

Action and Uses: - Aphrodisiac, Maulid-e-Mani Maugalaz-e-mani.

It has very nutritious value; it is used as best of articles of diet for weak or convalescent persons. It is given in all forms of wasting diseases such as phthisis, diabetes, chronic diarrhea and dysentery. It is used in India as a great restorative and invigorator and a tonic aphrodisiac, characterized by weakness or loss of sexual powers. It was recently tried in cases of nervous debility. It is also prescribed in hemoplegia and paralytic affection. It is also used in seminal weakness. It is used in both sexes' nocturnal emissions, nervous debility, impotence etc.

Dosage: 3-5 masha



Fig. 02 Orchis Masculula and Dacus Carota.

B. *Dacus Carota* (TUKHM-E-GAZAR)

Fruit somewhat compressed from back ovate or oblong. Seed externally flatish. Habitat: Indigenous to Kashmir and Western Himalayas, now largely cultivated in India for culinary purposes.

Constituents: Root contains carotin, hydro carotin, sugar, starch, pectin, malic acid, lignin, albumin, extractives, salts and a volatile oil, fruits contain volatile oil and fixed oil, the two principal constituents are a terpena

belonging to Wallach's Pinene group and an oxygenated body standing in near relation to lined. Carrit has a beneficial influence on the Kidneys and dropsy, and prevents the brick-dust sediment sometimes found in the urine. As antiseptic it prevents putrescent changes in the body. Seeds are aromatic, stimulant and Carmi in nature. It is used as aphrodisiac and nervine tonic. It cleans the blood. Seeds are used for producing abortion.

Dose: 3-4grms



Fig. 03 *Myrica Nagi* and *Mitthoil Incana*.

C. *Myrica Nagi*. (KAIPHAL)

It is a bark of tree, which is used as drug. Color of bark is reddish brown, Taste-Bitter.

Evergreen plant of the sub-tropical Himalayas. Simla Districts, Sylhet and Southwards to Singapore and found also the hills of Burma. This is a very commonly cultivated tree in China and Japan. Parts Used: Bark, flowers, seeds, arillus & fruits. Constituents: Bark contains, tannin Saccharine, and salts. The ground bark yields a coloring principle named Myricetin.

Action: It is aromatic and astringent, heating and stimulant according to Ayurveda. Bark is resolvent, astringent, carminative and tonic.

Uses: A decoction of the bark; mixed with ginger and cinnamon is valuable in asthma, diarrhea connected with phthisis, fever, lung infections, chronic bronchitis typhoid dysentery and diuresis.

Dose: 3-4 grams

D. *Matthiola Incana* (TUDARI)

Cultivated in the gardens of Northern India. Seeds are three kinds: white, red & yellow. They are stimulants, expectorant and aphrodisiac used in infusion in cancer. Mixed with wine, seeds are given as an antidote to poisonous bites.

Constituents: Alkaloids Cheirinine, glucoside, cheirolin, cheiran

Temperament: Hot 2 and Wet 1.

Aphrodiastac, galactogauge, mauld-e-mani, anti-inflammation. Ithas good nutritive action.

Uses: It used as expectorant, aphrodisiac. It is used with the combination of milk. It enhances the action of drug. Doses 4-5 grams.



Fig. 04 *Jasminum Grandiflorum* and *Gallus domesticus*.

E. *Jasminum Grandiflorum*

A plant with fragrant flowers, is generally met with all over India, spec the temperate regions, and on the temperate Himalayas. Leaves and flowers have been known in Hindu medicine.

Chemical Constituents: Leaves contain a resin, salicylic acid, an alkaloid named Jasmine Leaves are astringent, flowers are perfumed essential oil or Otto is prepared.

Action: anthelmintic, de-absorbant, diuretic and emmenagogue, as per Mohammedan writings use of flower as an aphrodisiac.

F. *Gallus Domesticus*

The Indian domesticated bird known as "Gallus". The part is used in the medicine is the egg of it. The white is the ovi albumin, after called also albumin the liquid albumin of egg. This albumin is distinguished from albumin of the serum of blood, by being coagulated

either. In weight it is about 5 drachms in one egg. The yolk or ovi vitellus dense viscid yellow or reddish yellow opaque alkaline liquid. It is coagulated by heat and by alcohol.

Constituents: Albumin contains albumin 15-18% a little mucus, fat, sugar extractive matter, lecithin, ash consisting of Alkaline Salts and water 82 to 85% yolk consists of water 50% vitelline, 16% inorganic salts 1.5% oil globules fat 30%, Sulphur and phosphorus contain in a bag or sac.

Action and uses: It has good nutritive property Egg white is said to be good soothing agent especially in vaginal irritation.

Semi Boiled egg has property of aphrodisiac

G. Centaurea Behen (BAHAMAN)

White and red Bahman were drugs of the ancient Persians, through with whom the Arabs became acquainted with them, and introduced them into the west. From the Burhen -I- Katia we learn that the word Behmen is equivalent to Brahman, means the supreme intelligence; it is also the name of one of the Persian months, of the second day of each month, and of a plant which flowers in the month Bahman [January], of this plant there are two varieties, red and white, the roots of which are falling, expel flatulence, and an aphrodisiac.

Bahman-e-sufed is much used by Mohammedan physicians, who consider it to be hot and dry in the second degree and a powerful aphrodisiac and resolvent of phlegmatic humours. They also prescribe it is calculus affections and jaundice.

Temperament: Hot2 and dry2

The dry root is of a whitish-brown externally, much shriveled and twisted; near the crown it is marked by numerous circular lines. It may be either simple and tapering, or more or less branched; sometimes a portion

of purplish stem remains attached; the average length is about 2½ inches, diameter ½ of an inch; the interior is white and spongy; when soaked in water it swells and becomes mucilaginous. The taste is mucilaginous and slightly bitter.

Chemical constituents: persistent greasy stain to bibulous paper, soluble in rectified spirit with an acid reaction, crystalline on standing, and melting below 20 degrees Celsius. It consists of free acids. A crystalline alkaloid behamines. Roots contain a bitter crystalline lactone behenin.

Actions: stimulant aphrodisiac, spermatogenetic refreshing, tonic for heart.

Therapeutic uses: It is useful in premature ejaculation palpitation and very much useful in cardiac problems, calculus it is used as an aphrodisiac, and in jaundice affections.

Dosage: 5 gram.

H. Inderjow shereen (WRIGHTIA TINCTORIA)

Inderjow shereen seeds of a deciduous tree with milky juice. This tree called "Tevaaj". The seeds resemble to "Dana-e-Jao". There are two types

1. Inderjao Shereen

2. Inderjao Talq.

Temperament: Hot 2 and Dry 2

Habitat: A deciduous tree with milky juice found in Central India. Western Peninsula, Coimbatore and Godavari districts.

Action: Astringent, Stomachic, tonic and febrifuge. Seeds are sweet and tonic, and are given in seminal weakness.

Action and Uses: uterine Sedative.

Leaves: - Astringent, aphrodisiac, palpitation of heart, chronic cough.

Temperament: Hot 2, Dry 1

Parts Used: Root, root-bark and juice



Fig. 05 Inderjow shereen and Centaurea Bahen.

I. Khand Siyah

It is a product obtained by concentrating the sugary Juice of sugar cane or palm trees with or without purification of the juice, in to a solid or semisolid state. Taste -sweet.

Mizaj: hot 2 and wet2

Old Hot 2 and Dry 1

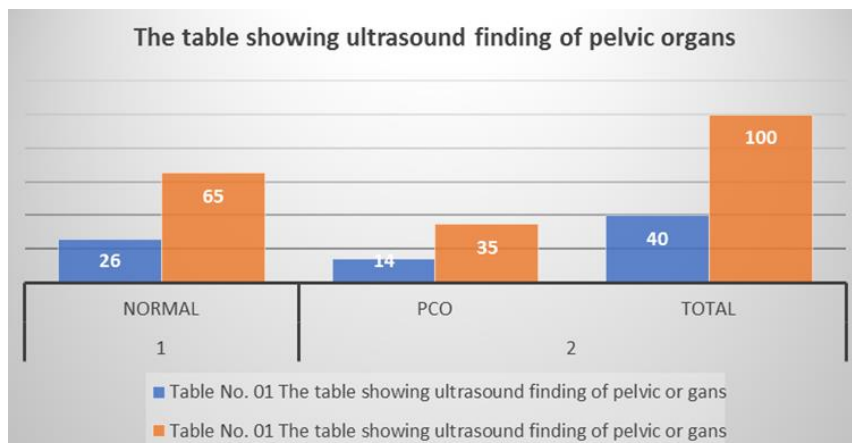
Action: Musameen-e-Badam, Mulien, Dafaya tafoon

Dosage 3-5 grams.

Chemical analysis: contains sugars such as glucose and sucrose, non-sugars-Nitrogen, calcium, Phosphorus, moisture and ash.

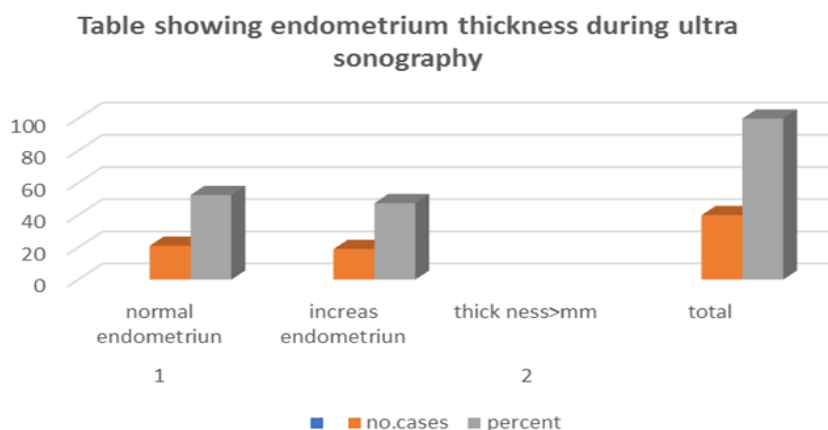
OBSERVATION AND RESULTS

Table No. 01 The table showing ultrasound finding of pelvic organs			
Sr. No.	USG for pelvic organs	No. of cases	percent %
1	Normal	26	65
2	PCO	14	35
	Total	40	100



The above table and graph show that 26 cases (65%) have normal pelvic organs and 14 cases (35%) have polycystic ovarian disease.

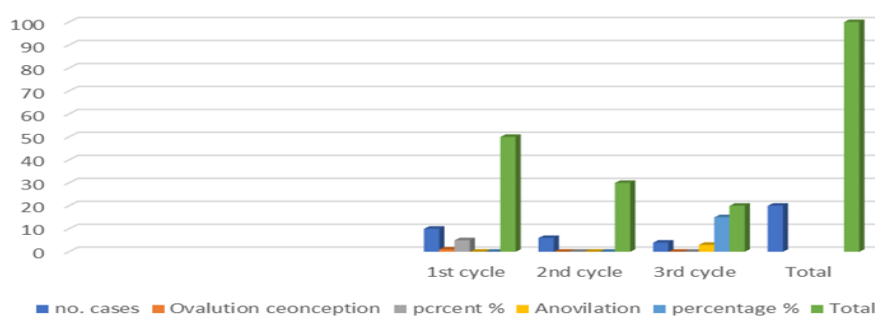
Table showing endometrium thickness during ultra sonography			
Sr. No.	USG findings of UT	No. cases	percent
1	Normal endometrium	21	52.5
2	Increase endometrium Thickness 8 mm	19	47.5
	Total	40	100



The above table and graph show that 21 cases (52.5%) have normal endometrium thickness and 19 cases (47.5%) have increased endometrium thickness more than 8 mm.

Distribution of patients according to Duration of Treatment with group A medicine									
Sr. No.	Duration of Treatment in cycle	no. cases	Ovulation conception	%	Ovaluation But No conception	%	Anovulation	%	Total
1	1st cycle	10	1	5	9	45	0	-	50
2	2nd cycle	6	0	0	6	30	0	-	30
3	3rd cycle	4	0	0	1	5	3	15	20
	Total	20							100

Distribution of patients according to duration of treatment with group A medicine



The above table and graph show that 1 case [5%] had ovulation with conception after treatment for I cycle. 9 patients [45%] had ovulation but no conception after treatment for one cycle, and 6 patients (30%) showed

ovulation after 2nd cycle treatment 1 Patient (5%) had ovulation after 3rd cycle and 3 patients [15%] had no ovulation after the treatment of 3rd cycle and had persistent anovulation.

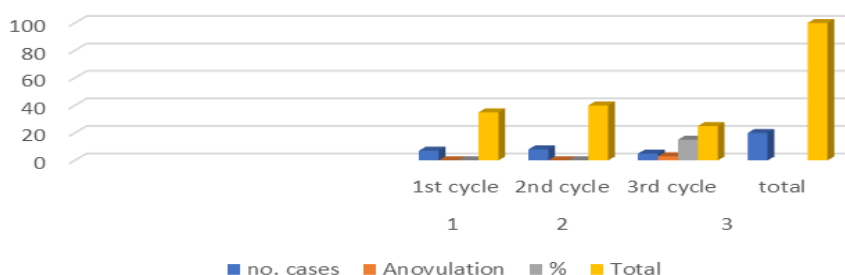
Distribution of patients according to duration of treatment group B medicine

No.	Duration of treatment in cycle	no. cases	Ovulation conception	%	Ovulation but no conception	%	Anovulation	%	Total
1	1st cycle	7	2	10	5	25	0	-	35
2	2nd cycle	8	0	0	8	40	0	-	40
3	3rd cycle	5	0	0	2	10	3	15	25
	Total	20							100

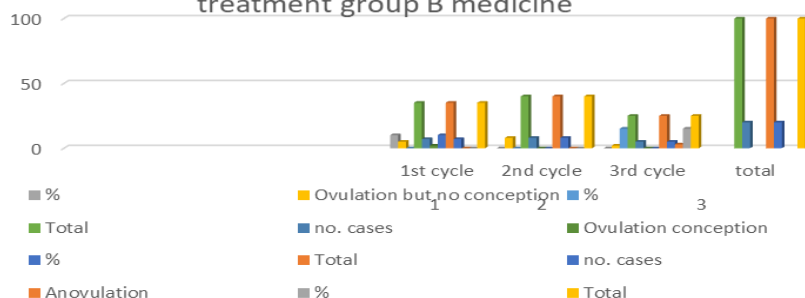
The above table and graph show that 2 cases [10%] had ovulation with conception after ovulation for 1 cycle. 5 patients [25%] had ovulation c out conception for the treatment of 1 cycle. And 8 cases [40%] had ovulation for the treatment of 2nd cycle. And 2 cases [10%] shows

ovulation for the treatment of 3 cycles [15%] had ovulation for the treatment of 2nd cycle and case 10% shows ovulation from the treatment of 3 cycle and 3 cases [15%] had persistent anovulation even after 3 cycles of treatments.

Distri bution of patients acording to duration of treatment group B medicine



Distri bution of patients acording to duration of treatment group B medicine



X. DISCUSSION

The present clinical study was designed to evaluate the therapeutic efficacy of selected Unani formulations in the induction of ovulation among women suffering from anovulatory infertility, one of the major causes of female infertility worldwide. The study sought to assess the effectiveness of herbal Unani remedies as a natural and safe alternative to conventional hormonal therapies, which are often associated with side effects such as ovarian hyperstimulation, multiple pregnancies, and metabolic disturbances.

A total of 40 patients aged 20–40 years with a confirmed diagnosis of anovulatory infertility were enrolled and divided into two groups of 20 each. Group A received a combination of Saleb Mesri, Tukhm-e-Gazar, Kaiphal, and Tudari Surkh orally, along with Roghan-e-Chambeli and Safaidi Beiza-e-Murgh in the form of Humool (pessary). Group B received Bahman Sufaid, Inderjow Shereen, Ushba Daisy, and Khand Siyah (jaggery) orally. Both treatments were continued for three consecutive cycles, and follicular monitoring was done using ultrasonography (USG).

The demographic data showed that the highest incidence of infertility was observed in women aged 26–30 years (45%), followed by 31–35 years (25%), aligning with previous studies indicating that ovulatory disorders are most common during this age group due to hormonal imbalance, stress, or obesity. Most patients had Safrawi (choleric) or Balghami (phlegmatic) temperaments, consistent with Unani literature, which associates infertility with either excessive heat leading to hormonal imbalance or coldness and sluggishness that inhibit ovulation.

The results clearly demonstrated that Group A showed a higher ovulatory and conception rate compared to Group B. In Group A, ovulation occurred in 95% of cases, with conception in 65% of patients within three cycles. In Group B, ovulation was observed in 75% and conception in 45% of patients. The superior outcomes in Group A can be attributed to the synergistic action of oral and local (Humool) therapy, which not only stimulates ovarian function but also enhances uterine receptivity, endometrial development, and cervical mucus quality—factors essential for successful conception.

From a pharmacological standpoint, the ingredients used in Group A possess diverse yet complementary actions. Saleb Mesri acts as a potent aphrodisiac and nutritive tonic, supporting reproductive organ vitality. Tukhm-e-Gazar is known for its ovulation-inducing and uterine-strengthening effects, while Kaiphal and Tudari Surkh have anti-inflammatory and hormonal regulatory properties. The local application of Roghan-e-Chambeli (*Jasminum grandiflorum*) and Safaidi Beiza-e-Murgh provides uterine tonicity and moisture balance, enhancing follicular rupture and implantation potential.

Conversely, the formulation used in Group B exhibited moderate effectiveness. Herbs like Bahman Sufaid and Ushba Daisy function as deobstruents (*Mufatteh-e-Sudad*) and blood purifiers (*Munaqqi-e-Dam*), aiding in hormonal balance and uterine health. Inderjow Shereen and Asgandh Nagori act as adaptogens and general tonics, improving metabolism and physical strength, which are beneficial in treating chronic infertility. However, due to the absence of Humool therapy in Group B, the response was comparatively delayed and less significant.

The findings align with the Unani theoretical framework, which states that infertility due to anovulation arises from Zauf-e-Rahem (uterine weakness), Burudat (coldness), and Sue Mizaj (temperamental imbalance). The combination therapy used in Group A effectively addressed these etiological factors through Taqwiyat-e-Rahem (strengthening of the uterus), Tahleel-e-Rutoobat (resolution of excess moisture), and Tadeel-e-Mizaj (temperamental correction), thereby restoring normal ovulation.

An important aspect of this study is that no adverse effects were observed in either group, confirming the safety and tolerability of Unani herbal medicines. This is in stark contrast to synthetic ovulation-inducing drugs like clomiphene citrate or gonadotropins, which, although effective, can produce adverse reactions such as ovarian hyperstimulation syndrome (OHSS) or multiple gestations.

The findings of this study are consistent with similar Unani and contemporary research indicating that herbal formulations containing Saleb Mesri, Tukhm-e-Gazar, and Musli Safed can significantly improve ovulatory function and fertility through endocrine modulation, antioxidant activity, and uterine tonicity. In conclusion, the Unani regimen used in Group A demonstrated remarkable efficacy in inducing ovulation, improving endometrial health, and achieving conception in women with anovulatory infertility. Its success can be attributed to the combined oral and local approach, which aligns with Unani principles of holistic and individualized treatment.

XI. CONCLUSION

The present clinical study concludes that the Unani formulations used for ovulation induction are effective, safe, and well-tolerated in the management of anovulatory infertility, one of the most common causes of female infertility. The results demonstrated that these formulations significantly improved follicular development, endometrial thickness, ovulatory response, and conception rates without causing any adverse effects. Among the two treatment regimens, Group A, which received both oral medication and local Humool (pessary) therapy, showed superior results, with 95% ovulation and 65% conception within three treatment cycles. The combined action of oral and local

administration provided a synergistic effect by simultaneously enhancing ovarian activity and improving uterine receptivity, thereby facilitating successful conception. In contrast, Group B showed moderate efficacy, with 75% ovulation and 45% conception, indicating that local therapy plays a crucial role in optimizing fertility outcomes. The remarkable success of Group A can be attributed to the pharmacological properties of its ingredients—Saleb Mesri, Tukhm-e-Gazar, Kaiphal, Tudari Surkh, and Roghan-e-Chambeli—which possess aphrodisiac (Muwallid-e-Mani), uterine tonic (Muqawwi-e-Rahem), deobstruent (Mufatteh-e-Sudad), anti-inflammatory (Muhallil-e-Waram), and hormonal balancing actions. These effects align with the Unani principles of Taqwiyat-e-Rahem (strengthening of the uterus), E'tidal-e-Mizaj (restoration of temperamental balance), and Tahleel-e-Rutoobat (resolution of excess moisture)—essential for normal ovulatory function. Importantly, no adverse reactions were observed, establishing that Unani formulations are safe and cost-effective alternatives to synthetic ovulation-inducing drugs, which are often associated with side effects such as ovarian hyperstimulation or hormonal imbalances. Therefore, the study validates that Unani medicine provides a holistic, natural, and efficacious approach for the management of anovulatory infertility by addressing the underlying causes rather than merely the symptoms. Further large-scale, controlled clinical trials are recommended to confirm these promising findings, standardize dosage regimens, and integrate Unani therapy into evidence-based reproductive healthcare.

XII. REFERENCE

1. Abu Bakar Mohmed Bin Al-Harr-Fi - Tibb Vol
2. Zakriya Razi press osmania University Hyd.
3. Azam khan Akseer-e-Azam Vol III Translation Mohd kabeer uddin.
4. Abu Baker Zakeria Razi Kitabul- mansoor Urdu trnalsation 1991 by CRIUM
5. Hakeem Gulam Nabi Qhawas-ul Advua [Mughz-al-Muferadath-vo-Murakebath]
6. Shaikh-al-Rayees Bualiseena kilkabul Advia - vo – Qulbia
7. Hakeem mohd abdul hakeem Busten-ul-Muferadath Mujtaba press lucknow 1894
8. Hakeem Ismail Bin Al Hasam Zaheer-e-Quarzum Jerjani [Persian] shahi
9. Hakeem hadi husain khan Muradabadi [Urdu]
10. Dr-ov-Hakeem & Ghulam Jeelani Maghzan-e-Muferadath Mujtaba press Lucknow 1894.
11. Ibne – Baitar Jame-ul-Afhzia-Vo-Adviya urdu translated ccrium
12. Ibne – Seena Alkhanoon-Fi-Tibb Vol III Translated by G.H. Kanturi munshi Nawar Kishore, Kanpur.
13. Njum-ul-Ghani Rampuri Khazeenath-ul-advia Press lucknow
14. NAFEES-Bin-Awais Kirmani shahr-e-Asbab- vo-Alamath. Urdu translated by hakeem Kabi vol III Dafter-ul-Massi, Dell
15. mohd kabeeruddin Maqzan-e-mufaredath [kitabul Advia Qhavas -ul-Adna] Publisher shaik mohd Basheer and son's Jalaal uddin Building ChowkUrdusagar Lahore.
16. Ram. P. Rastogi, B.N. Malhotra Compendium of Indian medicinal plants.
17. Hakeem Ahsan Ali Khan maqalath-e-Ahsani Munshi navool Kishore Press Kanpur.
18. Mohd Abdul Hakeem Bustanulmufaradeth Publisher Idare e Taraqqi Urdu publication Lucknow, Noaman press, Delhi.
19. R,N. Chopra, S.L.Nagar,glossary of Indian medical
20. I.C.Chopraplants.
21. C.C.Chettergy human Physilogy Vol II
22. Nad Karni Materia medica.
23. Rabinson 1992 Basic Pathology 5th edition.
24. Razhes 1968 Alhari [Arabic] Vol II
25. Guyton & Hallntext book of Medical Physiology 9th edn. 1996.
26. Hakeem Mastan Ali Mirza IImul Advia Vol I to Vol III
27. Food that Heat the natural way to good health[H.K.Bakhru] 1980.
28. Nafeesi, 1835Mualidate-Nafeesi.
29. Hakeem syed Mohemad Qhasim gana-Mana Sahid Rais, lucknow.
30. Abdul Waleed Muhmed kitab-al-kulliyath Bin Rashid, [Ccrium] 1980 Printed at new Public press Delh.