



# An effective Unani approach in the management of PCOS- A case study

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## Abstract

Polycystic ovarian syndrome (*Marz Akyas Khussyatur Rehm*), is a prevalent, complex endocrinopathy. This disorder affects 6% to 20% women in reproductive age depending on the diagnostic criteria applied. It is characterized by disrupted menstrual cycle, hyperandrogenism, acne, weight gain, hirsutism, diabetes propensity, depression, mood swings, chronic anovulation, and infertility. Exact pathophysiology is not clearly understood both genetic and environmental factors are involved. In classical Unani literature, the clinical features of this syndrome have been mentioned under the heading of *Ihtibas al-Tamth* (Amenorrhoea), *Uqr* (sterility), *Siman Mufrit* (Obesity), and hirsutism, which are nearly identical as per recent reports on PCOS. According to Unani medicine, there are several safe and efficient medications that can be used to treat the cyst instead of surgery. In the present study, A 16 years old, unmarried female, diagnosed with PCOS on the basis of clinical parameters, laboratory investigation, and ultra-sonographic findings. She was treated with *Majoon Dabidul Ward* 5 gm and *Niswani* syrup 10 ml orally twice a day for three months and *Mundij-i-Balgham* (concoctive of phlegm) 10gm orally for 14 days and *Mushil -i-Balgham* (phlegmagogue) on 13<sup>th</sup> and 15<sup>th</sup> day along with *Natul* (irrigation) therapy on the lower abdomen with milk at third and 10<sup>th</sup> day. After the treatment, Patient showed significant and admirable result in post-treatment investigation.

**Key words:** PCOS, *Majoon Dabidul Ward*, *Joshanda Munzij*, *Natul*, *Unani Medicines*

## Introduction

Polycystic ovarian syndrome (PCOS), is a heterogeneous endocrine condition that affects a large number of reproductive-age women globally (1) and is the most frequent cause of anovulation-induced infertility.(2). It was initially described in 1935 by Stein and Leventhal also termed as Stein-Leventhal syndrome.(3) This syndrome is often linked with enlarged and malfunctioning ovaries, excess androgen levels, and insulin resistance etc. It is additionally known as syndrome "O" Involving over nourishment, overproduction of insulin, ovarian confusion and ovulatory disruption.(1) This condition is thought to be the most prevalent endocrine disorder in women of reproductive age affecting 5-10% of reproductive women, rising to 15% in women with infertility (PCOD) and it accounts for about 75% of an ovulatory infertility.(2) In 70%

of PCOS patients, excessive hair growth is found primarily on upper lip, lower jaw, and chin, along with irregular menses, chronic anovulation, and infertility.(1,4,5) Exact etiology is poorly understood but various etiological factors such as hypothalamic pituitary compartment abnormality, persistent excess of androgen, anovulation, obesity and insulin resistance are thought to be involved in PCOS. Additionally, it has been noted that the pesticide chemicals used in fruits and vegetables cause hormone imbalances. It is strongly associated with PCOS.(6)

Endometrial cancer, psychological conditions (such as anxiety and depression), pre-eclampsia, recurrent abortion, perinatal mortality, and possibly breast cancer are among the long-term risks associated with PCOS. Other risks include obesity, type 2 diabetes, metabolic syndrome, hypertension, fetal macrosomia or abnormalities, dyslipidemia, cardiovascular diseases, thyroid, and hyperplasia. (1,7)

As per the American Society for Reproduction Medicine, presence of any two of the following three criteria oligo and/or anovulation, hyperandrogenism (clinical and/or biochemical), and polycystic ovaries—is the basis for diagnosing PCOS. The following tests should be performed in PCOS: lipid profile, prolactin, blood levels of FSH, LH, and TSH, and ultrasound. PCOS can be identified on USG if the ovarian volume is greater than 10 cm<sup>3</sup> and there are at least 20 peripherally placed follicles per ovary. Each follicular cyst has a diameter of roughly 2 to 9 mm. (4)

The disorder known as PCOS has been mentioned in the *Unani* system of medicine under the term *Marz Akyas Khusyatur Rehm*, which is actually an Arabic translation of PCOD. *Unani* physicians mentioned the description of PCOD under the headings of Amenorrhoea (Ihtibas al-Tamth), Obesity (*Siman Mufrit*) and Sterility (Uqr). (8) According to *Ibn-e-Rushed*, *Marz Akyas Khusyatur Rehm* is a disease of cold and moist nature and occurs due to a change in quantity and quality of *Balgham*.(9) Most of the eminent *Unani* physicians included PCOS (*Marz Akyas Khusyatur Rehm*) among the disorders that occur due to the impaired temperament in the liver and liver dysfunction, which may lead to abnormal production of *Balgham* (phlegm), Increase in *Khilat-e-Balgham* and its dominance in different parts of body may lead to formation of cysts in the ovaries.(10)

### Case Report

A 16 years old unmarried girl came to Shifa Unani Wellness Center, Lucknow with chief complaints of abdominal pain, irregular periods, spotting, constipation and acne with abnormal hair growth on her face for 10 months. She also complained of backache, body ache and generalized weakness. The symptoms were mild in the beginning, which increased gradually.

**Family History-** Not relevant

**Past history-** No Relevant Medical or surgical history and did not report any history of Ovarian or breast cancer.

### Menstrual History

Age of Menarche	13 years
Rhythm	Irregular
Interval	2 to 3 times in a month
No. of days of bleeding	4
Pain	++
Clots	NIL
Discharge	Present

### Personal history

Health Status	Thin
Body weight	42kg
Marital status	Unmarried
Diet	Mixed

Appetite	Decreased
Bowel	Constipation
Bladder	Normal Micturition
Sleep	Disturbed
Addiction	Tea

### USG Finding

The patient was diagnosed with PCOS based on the results of the USG, physical examination, and clinical history. The ultrasonography scan (TAS) revealed B/L cystic lesion in both ovaries. Size of Right Ovary=33x 25mm, Left Ovary 38x20 mm without any adnexal mass.

### Blood Investigations:

Haemoglobin-11.5g/dl, FSH level 4.12 mIU/ml, serum LH level 11.10 mIU/ml, serum Prolactin level 18.24 ng/ml, T3 level 132.6 ng/dl, T4 level 9.24 µg/dl and TSH level 1.42 IU/mIUFS112mg%, PPBS- 126mg%, LFT and RFT were I Normal range.

### Therapeutic Intervention

A treatment strategy that incorporated both pharmacotherapy and *Natul* therapy was planned for the treatment of PCOS. *Majoon Dabidul Ward* 5gm orally with *Niswani* syrup 10 ml twice a day for three months and *Mundij-i-Balgham* (concoctive of phlegm) 10 gm Orally BBF was administered for 14 days with *Mushil Balgham* on 13th and 15th day, BBF only to induce purgation. Moreover, *Natul* therapy on lower abdomen with Milk at third and 10<sup>th</sup> day.

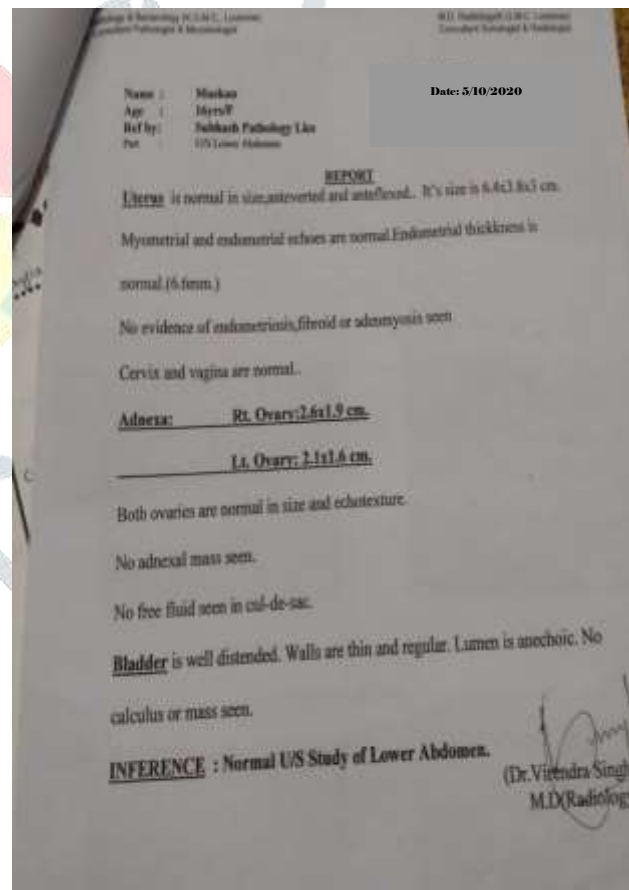
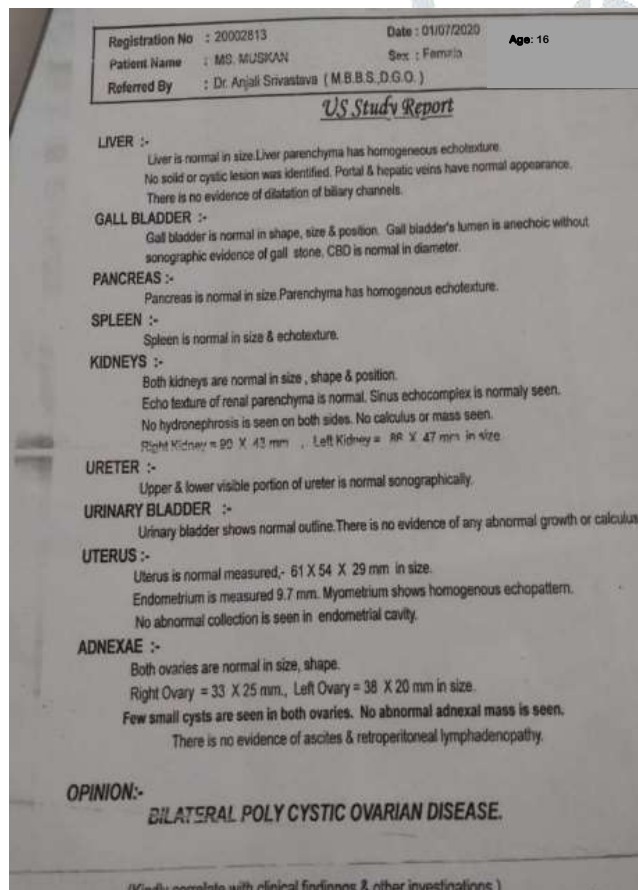


Figure.1 USG Report of pre-and post-treatment

### Result and discussion

After completion of 3 months of Treatment Study revealed that *Majoon Dabeed-ul-Ward* and *Niswani* syrup with *Joshanda Mundij* and *Mushil i- Balgham* along with *Natul* therapy is effective in reducing and relieving the symptoms of PCOS which is observed by decreasing pain in Suprapubic region, regular menses, decreasing growth of facial hair, normal bowel habit and improving in many other clinical features



of PCOS, as well as resolution of cysts on USG Report. The improved response was excellent and clinically significant. There is no adverse effect of the drug was observed.

*Majoon Dabeed-ul-Ward* is a significant and effective traditional herbal formula.(11) Most of the ingredients of *Majoon Dabeed-ul-Ward* possess anti-inflammatory, emmenagogue, antispasmodic, astringent, antiseptic and antimicrobial as well as antioxidant properties of all ingredients, which are well documented in pharmacological and classical *Unani* literature. (6, 12) Khan's case study on a left ovarian cyst measuring 4.8 cm demonstrated remarkable outcomes with the oral administration of *Majun Dabeedul Ward*, *Arq Kasni*, and *Niswani*. Post-treatment USG scans confirmed complete resolution of the cyst, eliminating the need for surgical intervention. (14)

Observed effect of the drug may be attributed due to *Gul-e-Surkh* (*Rosa damascene*) is the major constituent of *Majoon Dabeed-ul-Ward*, possess anti-inflammatory and analgesic activities. It is reported that hydro alcoholic extract of *Rosa damascene* has a potent analgesic effect in acetic acid and formalin tests in mice, possibly caused by quercetin and kaempferol.(13)

The antioxidant action of *Zafaran* (*Crocus sativus*), another significant component of *Majoon Dabeed-ul-Ward*, primarily stems from its carotenoid and flavonoid components, specifically the glycosides of crocin and kaempferol. In dried petals, crocin and kaempferol constituted 0.6% and 12.6% (w/w), respectively. (14)

Nair et al. demonstrated the potent antitumor activity of saffron (*Crocus sativus*) extract against various tumor models, including sarcoma-180 (S-180), Ehrlich ascites carcinoma (EAC), and Dalton's lymphoma ascites (DLA) in mice. Oral administration of 200 mg/kg bw of saffron extract significantly extended the lifespan of tumor-bearing mice by 111.0%, 83.5%, and 112.5%, respectively. The extract also exhibited strong cytotoxic effects on P38B, S-180, EAC, and DLA tumor cells in vitro. Further studies revealed that its mechanism of action involves the inhibition of DNA synthesis, as evidenced by thymidine uptake assays. (13)

Another drug that was used in decoction form was *Mundij i- Balgham* and *Mushil i- Balgham* as Purgative. All the ingredients of *Mundij i- Balgham*, specifically *Ustukhuddus* (*Lavandula stoechas*), *Parsiawashan* (*Adiantum capillus-veneris*), *Mako Khushk* (*Solanum nigrum*), *Bekh i- kibr* (*Capparis spinosa*), *Badiyan* (*Foeniculum vulgare*) and *Maveez Munaqqa* (*Vitis vinifera*), possess properties such as *Muhallil* (anti-inflammatory), *Mulattif* (demulcent), *Mufatteh Sudad* (deobstruent), *Qate Balgham*, *Munaqqie Akhlate Ghaleeza*, *Jali* (detergent) etc. (15)

Ingredients of *Mundij i- Balgham*, such as *Asl-us-Soos* (*Glycyrrhiza glabra*) possess *Musakkin* (analgesic), *Mufatteh sudad* (Deobsturent), *Mundij i- Akhlate Murakkab* (concoctive of compound humours) and *Muqawwi* (tonic) properties.(16)

*Tukhme Karafs* (*Apium graveolens*) which is also a dominant ingredient of *Mundij i- Balgham* reports to be *Mufatteh* (deobstruents), *Musakkin* (analgesic), *Muhallil* (anti-inflammatory), *Muarriq* (diaphoretic), *Mudire baul* (diuretic), *Muqawwi Dimagh wa Aasab* (brain and nervine tonic) actions. It also contains constituents having COX inhibitory activity which may significantly reduce the inflammatory process.(16)

*Mako khusk* (*Solanum nigrum*) is widely used as *Muhallil i- Warm* (Anti-inflammatory) and *Musakkin* (analgesic). It contains flavonoids, triterpenes, saponins and steroids known to have anti-inflammatory and antipyretic properties.(16)

Ingredients of *Mushil i- Balgham* are *Sana makki* (*Cassia angustifolia*), *Turbud* (*Operculina turpethum*), *Zanjabeel* (*Zingiber officinale*), *Barang kabuli* (*Embelia rubusta*), *Shahm-e-hanzal* (*Citrulus colocynthis*), *Suranjan* (*Colchicum luteum*), *Boozidan* (*Pyrethrum indicum*) and *Khayar Shamber* (*Cassia fistula*). The prepared decoction was given to drink before breakfast on 13th and 15th days only to induce purgation.(16)

The major components of *Niswaniare Munaqqa* (*Vitisvinifera*), *Haldi* (*Curcuma longa*), *Post-e-Amaltas* (*Cassia fistula*), *Khurma* (*Phoenix dactylifera*), *Post-e-Arjun* (*Terminaliaarjuna*), *Post-e-Ashoka* (*Saracaindica*), *Haldi* (*Curcuma longa*) has strong anti-inflammatory action

Various components of this compound possess antioxidant, anti-inflammatory and immunomodulator action.(14)

Wang et al. investigated the cytotoxic and antitumor properties of Curzerene, derived from *Curcuma longa* (*Haldi Zard*), using both in vitro and in vivo models. The study revealed that curzerene, administered at 135 mg/kg daily, effectively inhibited tumor growth by suppressing the proliferation of SPC-A1 human lung adenocarcinoma cells. This antitumor activity was attributed to the down regulation of GSTA1 protein and modulation of mRNA expression levels. (13)

Therefore, the aforementioned properties of various ingredients of the drug formulation documented in classical texts strongly suggest having the potential to treat the PCOS.

*Natul* therapy (at the lower abdomen with milk) was also a part of the management of PCOS. *Natul* is defined as when lukewarm water or decoction of drug irrigated at some distance to any organ is called *Natul*. Liquids used plain/warm water, milk, Khaisanda, *Joshanda* (herbal decoction) and oil. During the *Natul* process, the temperature of the affected part is increased, as a result of which blood circulation increases, the morbid material gets dissolved (*Tahleel*), and more nutrients reach the organ that changes the *Mizaj* (temperament) of the body.(17) It is mainly used in inflammatory conditions as an anti-inflammatory (*Muhalil i-warm*). In classical *Unani* literature, *Natul* has been described for various Inflammatory conditions such as cystitis (*Warm al - Mathana*), arthritis (*Waja al - Mafasil*), endometritis (*Warm i- raham*), mastitis (*Warm al Thadi*), and dysuria (*Usr-al-bawl*), as well as many other conditions like migraine, headache and insomnia.(18).The drugs used for *Natul* for this purpose are always used at a warm temperature; second, for analgesia and relaxing of tissues, such drugs should be of a warm temperament.

## Conclusion

It is concluded that *Unani* compound drugs; *Majoon Dabeed-ul-Ward*, *Niswani*, and *Mundij i- Balgham* and *Mushil i- Balgham* with *Natul* therapy are safe and effective in the treatment of ovarian cyst (*Keesa-e-Khusyat-ur-Rehm*), as these drugs resolve the ovarian cysts with significant improvement in symptoms associated with ovarian cyst, and induce menstruation regularly. Hence, *Unani* drugs with *Natul* therapy could be useful in ovarian cysts (*Keesa-e-Khusyat-urRehm*) as alternative therapy to avoid surgery. However, further clinical study is needed to evaluate the efficacy of *Majoon Dabeed-ul-Ward*, and *Mundij i- Balgham* with *Natul* therapy in PCOS at large sample sizes.

## Conflict of interest

There is no conflict of interest to declare

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