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Treatment of Recurrent Ovarian Cysts and Primary Infertility by Iranian Traditional Medicine: A Case Report

Mehdi Salehi, MD[1], Mohammad Setayesh, MD[1], and Roshanak Mokaberinejad, MD, PhD[2]

Abstract

Infertility is a medical and psychosocial problem with a high prevalence. There are different treatments for this problem in Iranian traditional medicine. A 28-year-old woman presented with the complaints of 4 emergency operations of the left ovarian cyst during 4 years and infertility. Diagnostic laparoscopy showed an ovarian cyst, adhesion, and endometriosis. Hysteroscopy was unremarkable. After 2 months of letrozole administration, the ovarian cyst ruptured again. Considering the failure of conventional treatments, Iranian traditional medicine products were administered to the patient. After 3 months, the patient conceived and delivered a healthy boy through normal vaginal delivery. These compounds may help with pregnancy as a uterine tonic, vitalizer, and aphrodisiac with brain and cardiac tonic properties.

Keywords

Iranian traditional medicine, female infertility

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Infertility is a general problem with important psychological, economical, social, and medical aspects. The incidence of this disease is about 15%.[1] This disease can lead to different psychopathologic disorders like anxiety, depression, lack of self-confidence, marital crisis, and even divorce.[2] Its treatment is complicated and costly and is not always successful. However, complementary medicine has good capacities to help with conventional treatments[2] and interest in complementary medicine has grown with regard to the treatment of infertility.[1,3]

A review of the English literature showed no published articles on the treatment of relapsing ovarian cyst and infertility using Iranian traditional medicine. Therefore, this is the first report in this regard.

Case History

A 28-year-old woman who was married for 6 years was referred to the outpatient clinic of the School of Traditional Medicine, Tehran University of Medical Sciences, with the complaints of relapsing ovarian cysts, primary infertility in February 2014. The medical history of the patient showed that she could not become pregnant after several surgeries, induction of ovulation and the use of letrozole for 2 months, and routine procedures by gynecologists.

The menstrual history of the patient showed menarche at 13 years and marriage at 22 years of age. Menstrual cycles were regular, and vital and systemic signs were normal. On gynecological examination, the cervix was normal and conical in shape. Vaginal examination showed a normal-sized anteverted uterus that was fornices free, mobile and uniform. Her husband was healthy and had a normal sperm analysis.

That patient had a history of 6 operations, including 4 emergency operations on the ovarian cyst during 2010-2014, an emergency appendectomy at the age of 12 years in 1999 in a university hospital. She underwent a diagnostic and therapeutic laparoscopy as well in 2013. The patient underwent 4 emergency operations—in June 2010, December 2011, January

[1] Department of Traditional Medicine, School of Traditional Medicine, Tehran University of Medical Sciences, Tehran, Iran
[2] Department of Traditional Medicine, School of Traditional Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran

Corresponding Author:
Roshanak Mokaberinejad, MD, PhD, Department of Traditional Medicine, School of Traditional Medicine, Shahid Beheshti University of Medical Sciences, Tehran 1516745811, Iran.
Email: rmokaberi@gmail.com

Figure 1. Ultrasonography after the last surgery and before attending the clinic of Iranian traditional medicine in February 2014.

2013, and January 2014—due to abdominal pain and tenderness and left ovarian cysts. Pathological evaluation showed hemorrhagic cysts in the left ovary.

Considering infertility and multiple ovarian cysts that led to multiple operations, the patient attended an infertility center in June 2013 where different diagnostic procedures were performed. The patient underwent laparoscopy and hysteroscopy, which showed adhesion, ovarian cyst, and endometriosis. A luteal cyst was excised from the left ovary and the endometriotic foci were cauterized. It was the first report of endometriosis and pathology reported a corpus luteal cyst.

The report of hysterosalpingography in May 2013 showed that the uterus had a normal size and position with no finding in favor of a filling defect. Both fallopian tubes, especially the right one, were opacified with free spillage.

After a diagnostic laparoscopy in 2013 and other diagnostic procedures, the patient started letrozole to induce ovulation in November 2013. After 2 months, she again had a ruptured ovarian cyst in January 2014 for which she underwent emergency surgery.

Because of numerous problems, she underwent multiple ultrasound examinations, all of which reported a normal-sized uterus with a normal myometrial pattern and endometrial thickness but revealed polycystic ovary syndrome and endometrioma. The last ultrasound examination after the last surgery and before attending the Traditional Medicine clinic in February 2014 showed that the ovaries still contained small 5- to 6-mm follicles and a 24-mm cyst without an internal echo (Figure 1).

Ultrasound examination of the internal organs as well as thyroid function test, liver function test, and hormonal profile were normal.

One month after the last surgery, she visited the Traditional Medicine clinic. Routine evaluations were unremarkable. Treatment based on Iranian traditional medicine was started at her request.

Table 1. Ingredients of *Squill Oxymel*.

Name of Drug	Dosage
Squill	250 mg
Honey	5 g
Vinegar	5 g

Table 2. Ingredients of *Raha* Capsule 500 mg.

Name of Drug	Part Used	Dosage (mg)
Vitex agnus-castus	Fruit	166
Foeniculum vulgare	Seed	166
Daucus carota	Seed	166

Table 3. Ingredients of "*Moshel Samghi* Capsule 125 mg.

Name of Drug	Part Used	Dosage (mg)
Ferula persica	Oleo-gum-resin	30
Dorema ammoniacum	Oleo-gum-resin	30
Ferula gummosa	Oleo-gum-resin	30
Citrullus colocynthis	Fruit	35

Figure 2. Ultrasonography showing gestational sac of 4 weeks and 6 days.

Two tablespoons of *Squill Oxymel* (Table 1) in the morning before breakfast and at night, 2 *Raha* (Aslagh, Persian name of Vitex agnus-castus) capsules 500 mg (Table 2) in the morning and 2 capsules at night starting from the seventh day of the menstrual cycle, and *Moshel Samghi* capsule 125 mg (Table 3) per night were started for the patient.

Three months after the start of the treatment, ultrasound examination was performed on May17, 2014, which was the ninth day of the last menstrual period. The report of sonography showed that the size of the uterus from the fundus to the external orifice was 84 × 56 mm, the right ovary had a normal size and view, and the ovarian cyst became smaller in size. There

were 4 dominant follicles measuring 11, 13, 15, and 18 mm in diameter in the left ovary and one dominant follicle measuring 15 mm in diameter in the right ovary. The patient was advised to conceive and she became pregnant in the same cycle. The pregnancy test was positive on June 7, 2014. Ultrasound examination on June 16, 2014 revealed a gestational sac with mean sac diameter = 11 mm, corresponding to 4 weeks and 6 days (Figure 2). The patient delivered a healthy boy weighing 2250 g through normal vaginal delivery on February 1, 2015. Another interesting information is that she is now (May 2016) 10 weeks pregnant with her second child.

Discussion

Scientific methods of infertility treatment have advanced in recent years but they are mostly expensive, invasive, and time-consuming.[2] Complementary medicine is becoming more and more popular in the world, especially Western countries[3,4]; for example, 75% of the women in the reproductive age used one of the methods of complementary medicine in 2006.[5]

The patient in our study underwent 4 emergency operations due to hemorrhagic ovarian cysts during 4 years and suffered from infertility for which she received letrozole before trying traditional medicine. Her ovarian cyst again ruptured after letrozole and therefore she underwent another emergency operation. Thirteen days after her last emergency surgery, ultrasound evaluation showed that the patient still had a large ovarian cyst. The traditional medicines used had aphrodisiac properties that might have helped with improving ovulation, and were brain and cardiac tonics. These medicines improve the overall function of the vital organs and help with pregnancy. The *Raha* (Aslagh) capsule is made of *Vitex agnus-castus*, *Foeniculum vulgare*, and *Daucus carota* seed in equal portions and is used at a dose of 1 g once in the morning and once at night (2 g per day) (Table 2). It is used in the treatment of gynecologic problems like polycystic ovary syndrome, ovarian cysts, and menstrual irregularities, activation of the ovaries, increasing libido, and improving the symptoms of menopause in Iranian traditional medicine.[6]

Vitex agnus-castus is a well-known plant in the treatment of gynecologic problems. It is now administered in premenstrual syndrome,[7-9] menopause problems, menstrual irregularities, menstrual disorders resulting from corpus luteum insufficiency, amenorrhea, uterine pains, ovarian edema, libido control and suppression of prolactin secretion,[8] and hemorrhagic and cystic follicles. In ovariected animal models, this plant has effects similar to high-dose estrogen, probably due to its effects on estrogen receptors.[10] It is useful in the treatment of infertility due to corpus luteum insufficiency.[11] According to references of Iranian traditional medicine, this plant is useful in the treatment of hypomenorrhea, and uterine pains, and increases the milk production.[12]

Foeniculum vulgare has palliative effects on dysmenorrhea, estrogen effects like development estrogenic phase, increasing the weight of breast glands, and increasing the thickness of the endometrium, cervix, and vagina,[11] and antioxidant effects.[13] Some studies have investigated the effects of this plant in the treatment of amenorrhea.[14] In the references of Iranian traditional medicine, this drug is emenagogge, decreases uterine pain, increases the libido, and increases milk production.[12]

Daucus carota is mildly emenagogge, increases milk production, and has estrogens that affect the female reproductive system.[15] It is also used for sexual stimulation.[16] *Daucus carota* seed is an antioxidant and is used for menstruation induction.[15] In Iranian traditional medicine, *Daucus carota* seed causes menstruation and helps with pregnancy.[12,17] It is very effective in increasing libido.[12]

Dorema ammoniacum improves the menstruation.[18] It is emenagogge according to Iranian traditional medicine references.[12]

Ferula gummosa is useful in digestive disorders[18] and has anticonvulsive,[19] spasmolytic,[20] anticytotoxic,[21] and antioxidant properties and osteogenetic effects on stem cells. According to Iranian traditional medicine references, it is a uterine tonic.[12]

Ferula persica has anticonvulsive and antihypertensive effects.[22] According to Iranian traditional medicine references, it is a diuretic and increases the libido.[12]

Citrullus colocynthis has purgative, anti-inflammatory, antidiabetic, hair growth–promoting, abortifacient, and antioxidant properties.[23,24] One study showed that *Citrullus colocynthis*, at a dose of 30 mg/kg of body weight, increased testosterone and luteinizing hormone in diabetic mice and had protective effects on the reproductive system.[25] It also has antispermatogenic effects.[26] According to Iranian traditional medicine references, it is beneficial in the diseases of the uterus and is emenagogge.[12]

The extract of the squill known as *Urginea maritima* has positive inotropic effects on the heart[27] and produces antioxidant effects.[28] The formulation of *Squill Oxymel* is mentioned in the British pharmacopoeia. It is regarded as an emenagogge in Iranian traditional medicine[12] and is useful in ovulation induction and treatment of ovarian cysts.

Conclusion

The action of some drugs such as *Vitex agnus-castus* is reported to have an effect on female infertility, but the efficacy of other drugs on induction of ovulation has not been evaluated with scientific parameters. Hence, more randomized controlled double-blind studies on a large sample size are suggested.

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Author Contributions

M Salehi was involved with the patient's care, conception and design, acquisition and interpretation of data, drafting the article, and revising article critically for important intellectual content. M Setayesh was involved with the patient's care, Conception and design, acquisition and interpretation of data. RM was involved with the patient's care,

revised article critically for important intellectual content, final approval of the version published, agreement to be accountable for the article and to ensure that all questions regarding the accuracy or integrity of the article are investigated and resolved.

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Ethical Approval

Patient gave consent to publication of information.

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