

CASE REPORT

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Treatment of Fallopian Tubes Obstruction in an Infertile Woman using Iranian Traditional Medicine

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ABSTRACT

Background: Infertility is a common complaint today with many causes in men and women. Tubal factor is one of the most important causes among females. Tubal disorders with a prevalence of over 14% are the most common complications of pelvic inflammation and infection incidence in women.

Case Presentation: A 28-year-old female patient, married for 5 years with the desire to have children, complaining of abdominal pain and dyspareunia, as well as fallopian tubes obstruction and hydrosalpinx with malodorous vaginal discharge for 3 years, was referred to the Traditional Medicine Clinic on July 18, 2016. As a result of fallopian tubes obstruction, she was a candidate for artificial insemination. After obtaining a history from the viewpoints of both modern and Iranian medicine, treatment was carried out on the patient in several stages based on Iranian medicine. Hysterosalpingography was performed at the end of the fourth month of treatment. It was reported that the fallopian tubes were open with no visible obstruction. So, the gynecologist allowed a normal pregnancy for the patient.

Conclusion: The point of consideration in the treatment process of this disorder from the perspective of traditional medicine is the necessity of disinfecting the fallopian tubes to remove the obstruction. In addition, uterine and ovarian functions improvements with gradual increase in the blood supply to the area were observed together with the process of dominant follicle formation as an indication of the wellbeing of the organ, making the patient to regain the normal strength for fertility.

Keywords: Fallopian Tube Obstruction, Hydrosalpinx, Infertility, Iranian Traditional Medicine

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Introduction

One of the causes of fertility problems in women is tubal factor with a prevalence of 14%. It is clear that the most acute sign is tubal problems in hydrosalpinx with a prevalence of 10-30% in infertility cases. Hydrosalpinx is the looseness of fallopian tube with end-tube obstruction, having several causes. The most common cause of end-tube obstruction is pelvic inflammatory disease (PID) caused by prior sexually transmitted infections such as Chlamydia trachomatis and Neisseria gonorrhoeae [1]. The obstruction of fallopian tubes does not only cause infertility but also render problems in pregnancy through In Vitro Fertilization (IVF). Therefore, salpingectomy reduces the chance of implantation [1-2]. The hydrosalpinx treatment was recommended to be pre-IVF salpingectomy in a guideline by the National Institute of UK [2]. Even so, the reality is the laparoscopic complications such as adhesions, bowel perforation and damage to the urinary tract, which are much more serious than pelvic infections. Accordingly, it seems necessary to study other hydrosalpinx treatments (such as complementary therapies) and tubal obstruction together with common treatments in classical medicine. Iranian medicine is a complementary therapy, which represents remedial recommendations based on the hypothesis of quadruple bodily phlegm. Thus, based on this hypothesis and the need to analyze and eliminate the infectious excessive material, it is possible to complement classical medicine therapies using topical treatment with oral herbal medications, thereby eliminating the patient's need for salpingectomy.

Case Presentation

Medical History and Examination according to Modern Medicine

A 28-year-old female patient, married for 5 years with the desire to have children and complaining of abdominal pain, dyspareunia, obstruction of the fallopian tubes and hydrosalpinx with malodorous vaginal discharge for 3 years, was referred to the traditional medicine clinic at Hazrat Rasool

Hospital that affiliated to the Iran University of Medical Sciences, on July 18, 2016. She complained of pain in the lower abdomen and vaginal pain during intercourse, from the beginning of marriage, with a smelly and discolored vaginal discharge. She also suffered from infertility and obstructed tubes by hydrosalpinx, was married for 5 years and used to apply natural contraception. The patient was visited by a gynecologist who diagnosed hydrosalpinx and infertility after hysterosalpingography. Following confirmation of problems, she voluntarily applied for salpingectomy and artificial insemination (Fig. 1). The patient was slender, 1.70 m in height, 63 kg in weight, and had a BMI of 21.79. Two years after the marriage, she discontinued contraception without medical supervision, or with no abnormal pain in the lower abdomen and dyspareunia. Due to infertility for almost three years, she visited the doctor and applied for hysterosalpingography. The treatment was planned based on hydrosalpinx and tube obstruction. Before application for salpingectomy, the patient had received three-course antibiotic therapy. She also complained of weakness and restlessness of the shins. The ferritin and vitamin D levels of the patient were 11 and 5, respectively, for which amendments were started with oral administrations. Vitamin D was amended by a pearl of 50,000 IU (one a week) and ferritin was adjusted with iron tablets in one daily.

Medical History and Examinations according to Iranian Traditional Medicine

The patient was slender with white face skin, and had brightly colored eyes and hair. She complained of bloating and constipation with periodic diarrhea. No upper abdominal pain was reported. She also complained of permanent post-nasal discharge but showed no history of allergies and sinusitis. The patient had obvious irregularities in eating, drinking, and sleeping with no exercise. When she became familiar with the Iranian Traditional Medicine almost six months before visiting the teaching clinic of Hazrat Rasool Hospital, she largely followed the order of eating and drinking, though, her physical activity was

still low. The patient felt pain during clinical examination with a speculum, showing visible dark, thick and smelly discharge. The vaginal wall was natural but painful with normal consistency and coloration, which was confirmed by manual examination. The pain was reduced by the use of three-course antibiotics for the treatment of PID, but it was still continuous. Narrow shoulders, thin and bright eyebrows, straight, thin and bright hair together with low-width joints as well as the appearance, height and weight of the patient indicated her cold and dry temperament.

Treatment

Measures to Protect Health and Nutrition:

Due to irregularities in eating, drinking and sleeping, the patient was briefed on necessary points based on the traditional medicine. The patient was advised to have a regular sleep and wake pattern (10 pm to 6 am) on most days and try to avoid sleeping, especially extra sleep, during the day. She was also advised to exercise regularly, avoid excessive inactivity, avoid consuming yogurt, buttermilk, pickles, and cucumber and tomato salad, try to eat slowly, and chew well so as not to drink water. A diet containing olives, steamed vegetables, grilled meats, and fresh foods was recommended. It was recommended that she should control her anxiety by deep breathing.

Pharmaceutical Measures:

During the first visit, Mohalel syrup and ovarian tonic were administered orally. The patient was advised on topical galangal oil application and sitz-bath. On the second visit (one month later), liver capsule was added to the above medications. On the third visit (one month after the second one), the Mohalel syrup was discontinued and replaced by Vitex (Raha) capsule. The medications continued at the fourth visit (one month after the third visit). From the perspective of traditional medicine, oral and topical medications were prescribed to mature and then breakdown the material accumulated in the fallopian tube end and disinfect it, thereby helping to eliminate the obstruction. From the

beginning to the end of the treatment, galangal oil was applied topically with palms for 10 min each night at sleep time. The warm sitz-bath was applied daily (except during menstruation) for 20 min, and it contained mixed plants including 100 g of cane (*Malva sylvestris*), 100 g of rose (*Rosa damascene*), 100 g of mallow (*Althea officinalis*), 100 g of chamomile (*Marticaria chamomilla*), and 400 g of hedge nettle (*Stachys schtschegleevii*). She was trained to crush the flowers by hand while wearing kitchen gloves, mix well, and perch into the filtered boiled flowers for 15 min every day during her non-menstrual period. It was stressed that the extract must be warm enough and if it was lukewarm or cold, she had to use boiling water to heat it and avoid sitting in the cold extract. At the same time, the patient used a tablespoon of Mohalel syrup, dissolved in a cup of boiling water in the morning, half an hour before breakfast while she was fasting. She also used a teaspoon of ovarian tonic with some warm water at night time before sleep.

Treatment Results

The patient was visited four weeks later. Vaginal examination clearly revealed reduced pain and discharge along with the patient's consent. The treatment continued with the addition of liver capsules (two a day, in the morning and evening). The visit was resumed four weeks later. Abdominal and vaginal examinations showed no pain by any means. The raha capsule (two a day in the morning and evening) was started at the third visit when the Mohalel syrup was discontinued. The application of oil continued every night, but the sitz-bath was reduced to three times a week. The patient was followed-up every other day with galangal oil, ovarian tonic, raha capsule and sitz-bath. Ultrasound treatment began at the middle of the fourth month, which was normal with no signs of hydrosalpinx. According to the treatment plan, hysterosalpingography had to be started at the end of the sixth month, which was performed at the end of the fourth month because of her urgency (Figs. 2-4). The tubes were reported to be open in hysterosalpingography; hence, she was allowed a normal pregnancy by the gynecologist.

Discussion

Pelvic infection is known as upper female urogenital infection and can result from endometritis, salpingitis, oophoritis, pelvic peritonitis and perihepatitis [1]. It is very important to diagnose and treat the disease in order to reduce the risk of its complications. Also, the long-term complications of this disease is caused by the scar and secondary adhesion tissue as well as damage to the tubes due to the gradual amelioration of the infection, leading to the incidence of long-term complications such as chronic pelvic pain, infertility, and ectopic pregnancy [2]. A cohort study was conducted among 100,000 women aged 20-40 years diagnosed with acquired pelvic inflammatory disease complications. There were 18,600 cases of chronic pelvic pain, 8,550 cases of ectopic pregnancy and 16,800 infertility reports [3].

Overall, women with a diagnosis of pelvic inflammatory disease are at a high risk of recurrent disease incidence. Additionally, improved fallopian tube is at higher risk for the occurrence of hydrosalpinx with pelvic pain, infertility, or without any symptom. As such, hydrosalpinx has a negative effect on the success rate of pregnancy following an ectopic pregnancy [4]. The incidence of PID is accompanied by complications such as infertility resulting from the involvement of the fallopian tubes, which could be with or without associated pain, leading to the loss of tubal cilia activity, fibrosis and ultimately, tubal obstruction [5]. This disease incidence and its treatment can be associated with infertility. PID should be taken into consideration for clinical manifestations due to its presentation and complications. Pelvic or lower abdominal pains, cervical pain when moving the cervix, and uterine cramp or adnexa in sexually active women (and rarely in women with no active sexual life) can lead to a suspicious clinical diagnosis [6]. In classical medicine, PID is cured by antibiotic therapy according to the guidelines, the outcomes of which in fertility preservation, have been investigated in detailed studies [7].

Moreover, complementary therapies such as the Iranian Traditional Medicine, have certain

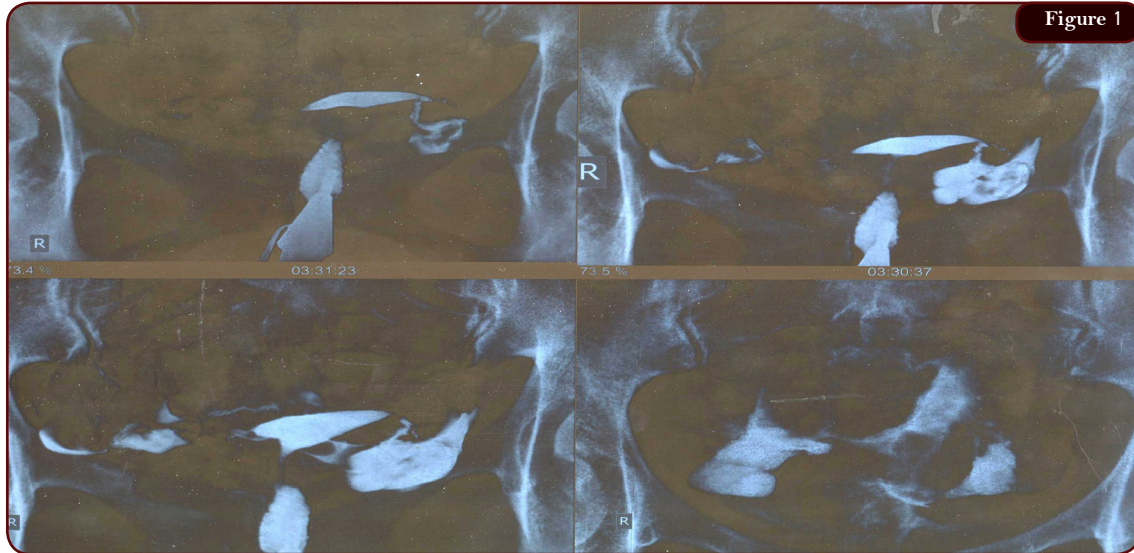
theories in the treatment and prevention of inflammation, tissue repair, and gradual recovery until the individual returns to a healthy state. According to this theory, disinfecting the organ of the disturbing and infectious matter by growing and then removing the matter, together with strengthening and activating the organ in order to restore its health, could help de-obstruct the tubes and treat hydrosalpinx [8]. In order to obtain this disinfection, the Mohalel syrup together with the application of oil and sitz-bath, were used. The Mohalel syrup is a mixture of squill oxymel and the powder of four plants. Squill oxymel is the extract of squill (*Urginea maritima*), that has a positive inotropic impact on the heart and antioxidant effects. The formulation of squill oxymel is presented in the Pharmacopoeia of England [9-10], consisting of chemicals namely: glycosides, flavonoids and stigmasterol [11]. Squill oxymel is used as a deobstruent and menstrual stimulus in Iranian traditional medicine. It is also effective in stimulating ovulation and treating ovarian cysts [12-13]. Squill oxymel mixed with four ground plants including anise (*Pimpinella anisum*), fennel (*Foeniculum vulgare*), celery (*Apygium graveolens*) seed and cumin (*Cuminum cyminum*) causes drying and assimilation of infectious and excessive bodily moisture.

The galangal oil (*Alpinia officinarum*) is effective in polycystic ovary syndrome and heating by increasing the blood supply [8]. The treatment was followed by a liver capsule to complete the disinfection process and continue the sitz-bath as well. Liver capsule as a deobstruent and the body disinfectant from the perspective of traditional medicine, contains coriander (*Coriandrum sativum*) seeds, lettuce (*Lactuca sativa* L.) seeds, jujube (*Zizyphus jujube*), chicory (*Cichorium intybus* L.) seeds, rhubarb (*Rheum officinale*) root, cassia (*Cassia angustifolia*) and thyme (*Thymus vulgaris*) leaves [8]. Thus, the use of topical oil together with sitz-bath to increase blood circulation in the tissue, is effective in the discharge of extra secretions and strengthening of the organ. Deobstruents were also used followed by strengthening of the organ.

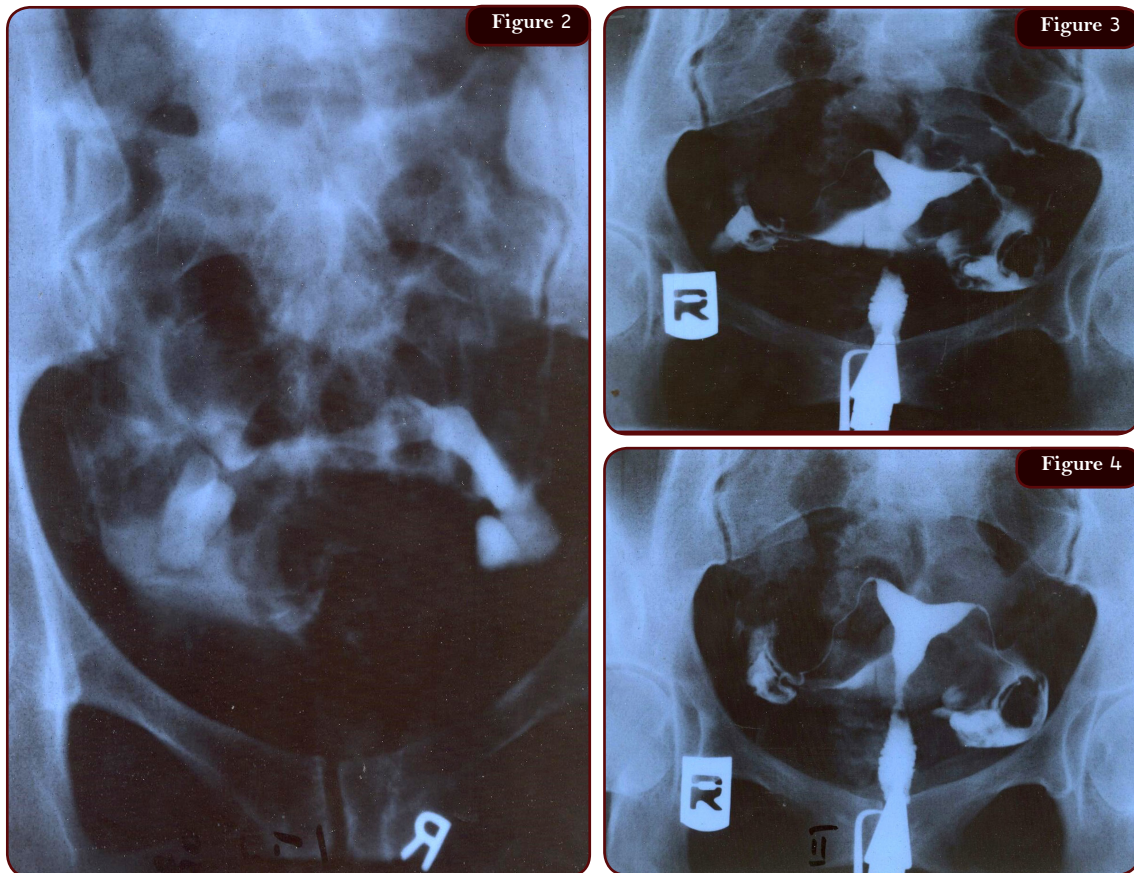
Ovarian tonic enhances the activity of the ovaries,

Figures 1- 4: Imaging Assessments Figures Before and After Treatment

Figure 1: Befor Treatment



Figures 2 - 4: After Treatment



increases libido, improves ovarian function, and ameliorates the process of dominant follicle formation. The ovarian tonic syrup contains boamace (*Myristica fragrans*), saffron (*Crocus sativus*), basil (*Ocimum basilicum*) seeds, turnip (*Brasica rapa*), cumin (*Cuminum cuminum*), plantain (*Plantago major* L.), cardamom (*Cardamomum eleetaria*) and ziziphora (*Ziziphora persica*). Vitex agnus capsule (raha capsule in Farsi) consists of three plants, namely: fennel seeds, vitex fruit and carrot seeds in equal proportions, and is used in the morning (1 g) and evening (1 g) [8]. In Iranian medicine, raha capsule is used in the treatment of gynecological diseases such as in Polycystic Ovary Syndrome (PCOs) treatment, ovarian cysts treatment, regulation of menstrual periods, activation of the ovaries, increasing libido, resolving depression in women, for menopausal improvement, and ovulation induction in infertility [9-10].

V. agnus castus is usable in PMS, menopausal problems, treatment of irregular menstrual periods, menstrual disorders caused by the failure of the corpus luteum, amenorrhea, uterine pain, swelling of the ovaries, menstrual induction, libido control, as well as inhibition of prolactin secretion and hemorrhagic cystic follicles [9-10]. According to the traditional medicine literature, the plant is effective in treating hypomenorrhea, as well as uterine swelling and pain, leading to an increased lactation [12]. Fennel (*Foeniculum vulgare*) has palliative effects, including those in dysmenorrhea, and also estrogenic impacts such as the estrogen phase, and weight gains of the mammary glands, endometrium, cervix and vagina, as well as antioxidant effect. Presently, research has been conducted on the effects of fennel on the treatment of amenorrhea [9-10]. In traditional medicine, the plant is used as follows: to stimulate lactation and menstruation, for uterine pain reduction, and as a libido booster [12]. Carrot seeds increase milk secretion and mildly stimulate menstruation; having an estrogen with a hormonal effect on the female sexual apparatus [13]. It has also been used as a sexual stimulation agent. Carrot seeds are also used as antioxidants and for menstrual stimulation [9-10]. In

traditional medicine, carrot seed is a menstrual stimulus, uterine tonic and libido tonic [1, 2, 14].

Conclusion

Using the theory of maturing, disinfection and strengthening [15] on the basis of Iranian Traditional Medicine, the fallopian tubes were gradually disinfected of the intruding infectious materials accumulating in the tube end. The ovarian and uterine functions were amended by gradual increase in the blood supply to the area. The process of dominant follicle formation was correctly completed as an indication of the healthiness of this organ. According to the ultrasound and hysterosalangiography, the organ's healthiness was confirmed in the patient, hence, she was allowed a normal pregnancy. Obviously, lifestyle modification, daily physical activity, timely and adequate sleep and a healthy diet, provided a quicker remedy for the patient; therefore, lifestyle improvement was associated with liveliness and a better libido for her. Eventually, the young woman, who suffered from intercourse pain and voluntarily applied for salpingectomy due to hydrosalpinx, could continue the process of a normal life without surgery and other aggressive methods at the end of the treatment period based on the theoretical foundations of Iranian medicine.

List of Abbreviations

PID: Pelvic Inflammatory Disease
IVF: In Vitro Fertilization
UK: United Kingdom
BMI: Body Mass Index
ITM: Iranian Traditional Medicine
PMS: PreMenstrual Syndrome

Competing Interests

The authors have no conflict of interest in the publication of this paper.

Contributing Authors

This study presents the outcomes of therapeutic activities by Dr. E. Akhtari, who contributed to the documentation and preparation of this article in cooperation with Dr. R. Mokaberinejad.

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