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Case Report

A Traditional Iranian Medicine (Majoon-e Loboob) for Idiopathic Male Infertility: A Case Series

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Abstract

Infertility is defined as the inability to conceive after 12 or more months of regular intercourse without contraception. Sperm abnormalities are introduced as 20-47% of infertility etiology. Idiopathic male subfertility is common (40-50%). In the Iranian traditional medicine, many natural drugs are used for enhancing fertility. This case series was an effort to understand the role of an Iranian traditional formulation in conception. For this purpose, 13 men with infertility and idiopathic oligoasthenoteratospermia were treated by 10 g Majoon-e Loboob twice daily. 11 (84.6%) of their wives became pregnant after 4.8 ± 2.0 months. In men with severe oligoasthenospermia (< 0.1×10^6/ml), no pregnancy occurred and their spermogram remained unchanged. However, libido and erectile function showed improvement in all patients. No adverse events have been reported by patients. Majoon-e Loboob could be considered as a complementary medicine for treatment of idiopathic infertility. Some of the natural components in this formulation have proven pharmacological activity in conception including *Zingiber officinale* and *Myristica fragrans*.

Keywords: Iranian Traditional Medicine, Male Infertility, Majoon-e Loboob, Sperm Parameter, Natural Remedy

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1. INTRODUCTION

Infertility is defined as the inability to conceive after 12 or more months of regular intercourse without contraception [1], [2]. Sperm abnormalities such as abnormal sperm number (oligozoospermia), decrease in motility (asthenozoospermia) and increase in abnormal morphology (teratozoospermia) are

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introduced as 20-47% of infertility etiology [3]. Idiopathic male subfertility is common (40-50%) [4], and many different treatments have been used include androgens, gonadotropins, and antiestrogens. Androgen therapy showed no significant improvement on semen parameters [5]. Gonadotropins, especially follicle-stimulating hormone (FSH) have been conflicting [6], [7], and pure FSH has been 49% effective. Gonadotropin-releasing hormone has lower success in comparison with gonadotropins. Antiestrogens like clomiphene can be useful only in 10-28% of cases [8]. Fertilization rate with assisted reproductive techniques which are very expensive, invasive with both low conception rates per cycle, and potential risks is about 7-40% in literatures [9], [10], [11], [12], [13], [14], [15]. Intracytoplasmic sperm injection may be accompanied with a risk for major congenital abnormalities, cancer or infertility in neonate [8]. With regard to the great limitations in male infertility management, it seems further research is needed to find appropriate and efficient treatments. According to Iranian traditional medicine (ITM), infertility is divided to male and female infertility. Male infertility causes due to a drop in semen and or abnormality of semen. Each of them may occur due to one or more of these causes: abnormal temperament (Mizaj), a problem in some important organs such as brain, liver and heart, opium abuse and psychosomatic disorders. “Majoon-e Loboob or Saqanqor” or “Skink electuary” (Table 1) which has been discussed as “Mojarrab” or successfully tried is introduced as a general treatment for any reason of semen disorders [16], [17], [18]. The aim of this study is to report the effect of “Majoon-e Loboob” (Skink electuary) on male infertility.

2. Case Report

A total of 13 male patients complaining of infertility were visited by an ITM physician at a physician’s office, which organized by the department of ITM, Tehran University of Medical Sciences, Tehran, Iran. Patients’ qualifications are shown in table 2. Patients were treated by 10 g electuary twice a day; one portion early in the morning before breakfast and the other before their sleep time with a glass of milk. In one case, the electuary was taken with a glass of water due to milk allergy. Treatment continued until wives pregnancy. Meanwhile, no other drugs except the skink electuary were given to the patients. All patients reported improvement of libido and erectile function, post electuary use. There was no report of drug intolerance. Wives of 11 cases (84.6%) became pregnant after a mean of 4.8 ± 2 months (with a range of 3.3 months and 10.6 months). In two other cases with very low sperm count, follow-up tests after 4 months in 1 and 5 months in another didn’t show any changes in sperm count (Table 3). Spermogram test was done in a particular laboratory. Unfortunately, after pregnancy of their wives, most of the patients did not repeat spermogram test. All the 11 wives who became pregnant had a normal term pregnancy and gave birth to normal babies.

Table 1. Ingredients of Majoon-e Saqanqor

Name of ingredients	Ratio (unit)
Pesteh (*Pistacia vera*)	5
Nargil (*Cocos nucifera*)	5
Fandoq (*Corylus avellana*)	5
Chalqoozeh (*Pinus gerardiana*)	5
Badam (*Prunus amygdalus*)	10
Konjed (*Sesamum orientale*)	10
Faniz (Sugar)	10
Joz-e Bua (*Myristica fragrans*)	1
Habborrashad (*Lepidium sativum*)	1
Darfelfel (*Piper elongatum*)	1
Aspest (*Medicago sativa*)	1
Zanjabil (*Zingiber officinale*)	2
Kababeh Chini (*Piper cubeba*)	2
Kondor (*Boswellia carteri*)	2
Bahman-e sorkh (*Statice limonium*)	3
Bahman-e sefid (*Centaurea behen*)	3
Qodoomeh (*Alyssum minus*)	6
Saqanqor (Skink)	1
Gazaneh (*Urtica dioica*)	1
Honey	140

Source: Pharmacy of department of ITM, Tehran University of Medical Sciences, Tehran, Iran.

Table 2. Summary of patients' information

No	Age (years)	Infertility duration (years)	Sperm count ($\times 10^6$/ml)	Sperm Motility (%)	Sperm normal morphology (%)	Past history
1	27	5	17.6	50	52	Varicocele with surgery 3 years ago
2	25	2	12	70	70	-
3	23	3	15	70	40	Varicocele without surgery
4	35	10	19	30	18	1 pregnancy 1-year ago
5	26	4	0.5	40	25	-
6	26	3	11	40	30	-
7	34	9	18	35	23	Abortion 3 years ago
8	37	6	8	40	4	IUI with pregnancy
9	37	10	4	1	15	IUI and IVF without any result
10	37	2	16	40	20	-
11	32	1	13	40	5	-
12	35	8	0.1	0	1	IVF without any result
13	29	4	0.1	0	1	-

IUI: Intrauterine insemination, IV: *In vitro* fertilization

Table 3. Results of treatment with Majoon-e Saqanqor

No	Age (years)	Infertility duration (years)	Sperm count ($\times 10^6$/ml)	Sperm motility (%)	Sperm normal morphology (%)	Pregnancy in wives	Tx duration (months)
1	27	5	17.6	50	52	+	10.6
2	25	2	12	70	70	+	3.3
3	23	3	15	70	40	+	5.3
4	35	10	19	30	18	+	4.2
5	26	4	0.5	40	25	+	4
6	26	3	11	40	30	+	3.6
7	34	9	18	35	23	+	5
8	37	6	8	40	4	+	4.4
9	37	10	4	1	15	+	7
10	37	2	16	40	20	+	4.6
11	32	1	13	40	5	+	5
12	35	8	0.1	0	1	-	5
13	29	4	0.1	0	1	-	4

4. DISCUSSION

Infertility is not only a medical stigma, but it is also a social and psychologic stigma for the couples so that prevalence of depression among infertile couples was very high so that nearly 50% of the infertile couples were affected with some degrees of mild, moderate or severe depression [19]. There are some studies to know reasons and more effective ways of male infertility treatment, for example, in a study, increased sperm ubiquitination was inversely associated with good semen quality parameters [20]. Wang et al. [21] showed that electroacupuncture, traditional Chinese medicines and their coadministration could improve semen parameters in 67.6%, 68.3%, and 84.6% of cases, respectively. Maosong et al. [22] surveyed the effectiveness of combined traditional Chinese medicine and western medicine on asthenospermia and oligospermia. Consequently, fertility success rate in minor oligospermia, severe oligospermia, minor asthenospermia, and severe asthenospermia, were 46.26%, 8.33%, 48.15%, and 6.98%, respectively. The action of some drugs such as *Zingiber officinale* [23] and *Myristica fragrans* [24] has been reported to have an effect on male infertility. These plants are used in some Indian traditional combinations in order to conception [25].

Apparently, it seems that Majoon-e Loboob is effective in patients with sperm counts of $\geq 0.5\times10^6$/ml and in those with lower sperm counts, the treatment would not be useful. It might be that an extended duration of treatment can lead to different results and also having the semen analysis repeated during the treatment can yield evidence of its effects. Since successful pregnancy rate in healthy couples is 20% in a normal cycle [1], [8] an average of 4/8 months for successful fertility with skink electuary would be very remarkable. Since spermatogenesis takes 70 days [26] and sperm transfer from epididymis to ejaculatory duct lasts 12-21 days [27], [28] it seems that skink electuary could resolve sperm abnormalities in the first 90 days required for sperm formation and transfer, and lead to successful fertilization. However, more studies should be made to clarify its efficiency on sperm count, motility, and dysfunction.

5. Conclusion

In spite of the major improvement in male infertility treatment, there is still a need for more effective and less expensive drugs for the treatment of this highly prevalent reproductive health problem. Skink electuary seems to be a considerable and worthy option which may be considered as an effective treatment in male infertility. Nevertheless, more studies are needed for better assessment of its effects.

6. Conflict of Interests

Authors have no conflict of interests.

7. Acknowledgments

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References

[1] Practice Committee of American Society for Reproductive Medicine. Definitions of infertility and recurrent pregnancy loss. Fertil Steril 2008; 90(5 Suppl): S60.
[2] Mosher WD, Pratt WF. Fecundity and Infertility in the United States, 1965-88. Hyattsville, MD: National Center for Health Statistics (U.S.); 1990.
[3] World Health Organization. Towards more objectivity in diagnosis and management of male infertility. Int J Androl 1987; 7(Suppl 1): 19-33.
[4] de Kretser DM. Male infertility. Lancet 1997; 349(9054): 787-90.
[5] Vandekerckhove P, Lilford R, Vail A, Hughes E. Androgens versus placebo or no treatment for idiopathic oligo/asthenospermia. Cochrane Database Syst Rev 2000; (2): CD000150.
[6] Kamischke A, Behre HM, Bergmann M, Simoni M, Schafer T, Nieschlag E. Recombinant human follicle stimulating hormone for treatment of male idiopathic infertility: a randomized, double-blind, placebo-controlled, clinical trial. Hum Reprod 1998; 13(3): 596-603.
[7] Foresta C, Bettella A, Merico M, Garolla A, Ferlin A, Rossato M. Use of recombinant human follicle-stimulating hormone in the treatment of male factor infertility. Fertil Steril 2002; 77(2): 238-44.
[8] Speroff L, Fritz MA. Clinical gynecologic endocrinology and infertility. Philadelphia, PA: Lippincott Williams & Wilkins; 2005.
[9] Myers ER, McCrory DC, Mills AA, Price TM, Swamy GK, Tantibhedhyangkul J, et al. Effectiveness of assisted reproductive technology (ART). Evid Rep Technol Assess (Full Rep) 2008; (167): 1-195.
[10] Kwan I, Bhattacharya S, McNeil A, van Rumste MM. Monitoring of stimulated cycles in assisted reproduction (IVF and ICSI). Cochrane Database Syst Rev 2008; (2): CD005289.
[11] Tanbo T, Kjekshus E, Dale PO, Storeng R, Lunde O, Magnus O, et al. [Intracytoplasmic sperm injection]. Tidsskr Nor Laegeforen 1998; 118(6): 864-9.
[12] van Steirteghem A, Nagy P, Joris H, Janssenswillen C, Staessen C, Verheyen G, et al. Results of intracytoplasmic sperm injection with ejaculated, fresh and frozen-thawed epididymal and testicular spermatozoa. Hum Reprod 1998; 13(Suppl 1): 134-42.
[13] Garcea N, Campo S, Garcea R. [The ICSI (Intracytoplasmic Sperm Injection)]. Minerva Ginecol 1998; 50(6): 239-53.
[14] Eshre Capri Workshop Group. Intrauterine insemination. Hum Reprod Update 2009; 15(3): 265-77.
[15] van Rumste MM, Custers IM, van der Veen M, van Wely M, Evers JL, Mol BW. The influence of the number of follicles on pregnancy rates in intrauterine insemination with ovarian stimulation: a meta-analysis. Hum Reprod Update 2008; 14(6): 563-70.
[16] Azamkhan M. Exir Azam. Tehran, Iran: Research Institute for Islamic and Complementary Medicine;

2009. [In Persian].
[17] Aghili Khorasani MH. Moalejat Aghili. Tehran, Iran: Research Institute for Islamic and Complementary Medicine; 2009. [In Persian].
[18] Kermani A. Al-Asbab va Al-Amanat. Qom, Iran: Jalaledin Publication; 2009. [In Persian].
[19] Masoumi SZ, Poorolajal J, Keramat A, Moosavi SA. Prevalence of depression among infertile couples in Iran: a meta-analysis study. Iran J Public Health 2013; 42(5): 458-66.
[20] Hodjat M, Talebian A, Akhondi MA, Zeraati H, Shabani A, Sadeghi MR. Sperm Ubiquitination Correlation with Human Semen Quality. Iran J Public Health 2008; 37(2): 32-40.
[21] Wang ZQ, Huang YQ, Liang B. Clinical observation on electroacupuncture and Chinese drug for treatment of oligospermia and asthenospermia of the male infertility patient. Zhongguo Zhen Jiu 2008; 28(11): 805-7. [In Chinese].
[22] Maosong L, Jican D. Evaluation of treatment of oligospermia or asthenozoospermia infertility with combination of Chinese Traditional and Western medicine with new criteria. Journal of Modern Urology 2004; 4: 223-5.
[23] Jorsaraei SG, Yousefnia YR, Zainalzadeh M, Moghadamnia AA, Beiky AA, Damavandi MR. The effects of methanolic extracts of ginger (Zingiber officinale) on human sperm parameters; an in vitro study. Pak J Biol Sci 2008; 11(13): 1723-7.
[24] Tajuddin, Ahmad S, Latif A, Qasmi IA, Amin KM. An experimental study of sexual function improving effect of Myristica fragrans Houtt. (nutmeg). BMC Complement Altern Med 2005; 5: 16.
[25] Sultana A, Rahman K, Nagaraj RB. Conception in unilateral right tubal blockage with herbomineral formulations: a case report. J Altern Complement Med 2011; 17(6): 557-61.
[26] Heller CG, Clermont Y. Spermatogenesis in man: an estimate of its duration. Science 1963; 140(3563): 184-6.
[27] Rojhan MS. Basic human histology. Tehran, Iran: Chehr Publication; 1993. [In Persian].
[28] Rowley MJ, Teshima F, Heller CG. Duration of transit of spermatozoa through the human male ductular system. Fertil Steril 1970; 21(5): 390-6.