

Varicocele from the Perspective of Persian Medicine

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Abstract

Background and objectives: Varicocele has a relatively high prevalence in men and is a major cause of infertility in men. The disease has been discussed extensively in Persian medicine textbooks. Considering the importance of infertility and its impact on mental health and quality of life, we aimed to review the Persian medicine (Iranian Traditional Medicine) literature on the underlying causes, the process and treatment of varicocele.

Methods: This descriptive review was carried out using 13 most authoritative sources of Persian medicine with the help of the Noor software. The search was conducted using the following keywords in their Persian medicine equivalents: "varicose", "testicles", "gonads" and "scrotum".

Results: Varicocele was defined as tortuous dilation of testicular veins and their surroundings. Because of the coldness and the weaker nature of the left testicle, varicocele is more prevalent on this side. This could be related to the reduced purification of materials due to the path of left testicular arteries. For the treatment of this disease, the Persian medicine recommends a set of measures including dietary modifications, some oral and topical medications, and even phlebotomy.

Conclusion: Studying the Persian medicine literature and utilizing the recommended therapies (after updating and confirming their efficacy in evidence-based research) can provide cost-effective, safer and simpler therapeutic approaches that can be complementary to the current therapies.

Keywords: Varicocele; Persian Medicine; Iranian Traditional Medicine

Introduction

Varicocele refers to an abnormal dilatation of the testicular veins, which is more common in the left testicle. The prevalence of this disease

is 15-20% among men of reproductive age, 30-15% among primary infertile men, and 78-85% in men with secondary infertility (1-6). The high prevalence of varicocele in

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infertile men could indicate an association between the two conditions (1).

The exact mechanisms involved in varicocele-induced testicular dysfunction have not yet been identified, but it is thought to be related to venous dilatation, hormonal imbalance, reflux of adrenal metabolites, and testicular hypoxia (2-4).

Given the importance of fertility and population growth in societies as well as the undeniable effects of reproductive capacity on mental health and quality of life, it is essential to study the factors and mechanisms associated with development of varicocele.

Currently, varicocelectomy or microsurgical repair is the most common method of treating varicocele. However, the positive effects of this treatment on male fertility are controversial (1). In addition to general complications, surgery imposes a great deal of physical and psychological stress and financial burden on the patient. The most common varicocelectomy-associated complications are postoperative varicocele

recurrence, hydrocele formation, and damage to the testicular arteries. Hence, finding alternative therapies with less side effects or one that could reduce the need for surgery seems necessary.

Considering the different perspectives of Persian medicine in investigating and identifying the disease etiologies and appropriate treatment methods, we aimed to review the literature on the underlying causes and treatment of varicocele from the perspective of Persian medicine.

Materials and Methods

This descriptive review was carried out using 13 most authoritative sources of Persian medicine with the help of the Noor software. The software contains a collection of 935 books and medical theses written by great Iranian physicians. The books were selected according to the curriculum of Persian medicine PhD students. The books selected for this study were: 1- Tebb-E-Akbari 2- Fosoul Al-A'raaz 3- Khaza'en al-molook 4-

Exir-e A'zam 5- Sharh al-Asbab va al-Alaamaat 6- Mizan al-teb 7- Makhazen al-ta'lim 8- Guide for Healthy Medicines 9- Hedayatol Motealemin fe Teb 10- Khofi Alaii 11- Ghiasie 12- Khulasah al-Hikmah 13- Canon of Medicine. The search was conducted using the following keywords in their Persian equivalents: "varicose", "testicles", "gonads", and "scrotum". Relevant information and statements were coded and categorized into definition, etiology, symptoms, and treatment. Relevant sentences were summed up and translated without interpretation.

Results

Varicocele was defined as tortuous dilation of testicular veins and their surroundings (7-14). Because of the coldness (7,8,11) and the weaker nature of the left testicle (7,8,10,11), varicocele is more prevalent on this side (7-11,13). It is also related to the reduced purification of materials (8) due to the path of left testicular arteries (10,11). In some cases, pulsation and involuntary jerking are also

observed in the scrotum, which is due to vapors from unpurified concentrated materials in the scrotum (8,11). Varicose can sometimes occur in the testicle itself, making it difficult to walk (7-11).

Many sources have proposed similar treatments for testicular varicose and varicose vein on foot (7,9,11,12). In the treatment process, it is recommended to first purify Soda substances (7,10-16) and Balgham substances (7, 12,16) from the body based on the causative agent through consumption of "Iaraj fighara" (7,16) combined with a little "Armenian clay" (7), Agaricus (*Polyporus officinalis*) and Armenian stone (16), Ma' al-jobon (7,13,16), *Cuscuta epithymum* (15,16,17) and *Colchicum luteum* (9,17) followed by phlebotomy (7,10,12-17), diarrhea (7,10,12,13,15), and vomiting (7,10,12,16,17).

Phlebotomy is recommended for both the basilic vein (7,10,11,13,15-17) and the elevated veins at the disease site (7,10,11-13,15). It is said that rubbing and massaging

the treated site could help complete extraction of unpurified concentrated material (7,11,13). Next, in order to prevent the re-aggregation of materials (7,11,12), the site should be treated with seed of Arugula (*Eruca sativa*), seed of Horseradish (*Raphanus sativus*), branches of Fenugreek (*Trigonella foenum-graecum*) combined to olive oil (17) or egg white (12) and finally bandaged (7,11,12).

It is also possible to use dissolvent and laxative spices (7,10) or Fenugreek's poultice, seed of flax (*linum usitatissimum*), Marsh-mallow (*althaea officinalis*), fat of goat and lily's oil (*iris florentina* lily) for this purpose (10). The treatment process will continue with supplementary recommendations. Great emphasis has been placed on avoiding concentrated foods (7), soda producing foods (7,10,13), overeating, dates, and wine, especially sweet red wine (15). The patient should avoid excessive activity (7,17) and exercise (11,13,15,16,18,19) but is encouraged to consume warm and wet foods (10), Cumin

pottage, Chickpea pottage and Wheat pottage (17).

From the Persian medicine perspective, human beings are distinguished from one another based on their appearance and psychological and physiological characteristics, collectively referred to as temperament. As long as this balance and normal functioning of the body are maintained, the person will be in good health. However, any intrinsic or extrinsic factor that disrupts this balance can lead to development of disease. Although symptoms of a disease may be more conspicuous in one organ, all parts of the body are affected by the disease. Therefore, in order to treat the disease, one should also focus on elimination of the causative agent by cleansing and returning the lost balance to the body (temperament correction) (20, 21).

Regarding the treatment of varicocele, a series of measures have been proposed that can be divided into two broad categories: general measures and topical measures. General

treatments are a collection of actions that are taken to cleanse the body and correct patient's temperament. They usually begin with recommendations for diet and nutritional modifications, and are continued with prescription of medications. Topical measures include the use of drugs at the site of the disease and interventions known as *Aamal-e-yadavee* (manipulation and physical therapies).

Conclusion

In order to review and evaluate the knowledge on the issue of varicocele available in Persian medicine textbooks, we compared the findings of this research with the corresponding contents in conventional medicine as described in the introduction of this article. The viewpoints of all Persian medicine scholars were almost in line with the latest findings of conventional medicine on the etiology and symptoms of varicocele.

Considering the side effects and costs of varicocelectomy and the WHO strategy for implementing action plans that will strengthen the role of traditional medicine in health promotion, utilizing the knowledge offered by the Persian medicine textbooks can provide cost-effective, safer, and simpler therapeutic approaches that can be complementary to the current therapies.

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Declarations

Conflict of interest

None

Authors' contributions

All authors contributed equally to this work

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