

Treatment of male infertility from damp heat physique

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Competing interests

The authors declare no conflicts of interest.

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Abstract

Male infertility is a common and frequently-occurring disease in andrology clinics. Its pathogenesis and clinical symptoms are complex and changeable. The treatment of traditional Chinese medicine is mostly based on dialectical treatment. Modern physicians headed by Professor Wang Qi respected the theory of physique, combined body differentiation, disease differentiation and syndrome differentiation, and put forward a new diagnosis and treatment concept of "quality differentiation and treatment". Big clinical data has confirmed that there is a correlation between Damp-Heat (Etiological terms. It refers to a disease. The combination of heat and dampness.) physique and male infertility. In order to improve the therapeutic effect of male infertility due to Damp-Heat, through the differentiation and treatment of male infertility and the analysis of the theory of Damp-Heat physique, combined with the investigation and research results of Damp-Heat physique and modern doctors' experience in the treatment of male infertility from the perspective of Damp-Heat In summary, it is concluded that correcting the formation and development of Damp-Heat physique clinically has important clinical basis and therapeutic advantages for the prevention and treatment of male infertility.

Keywords: Damp-Heat physique; male infertility; theory; treatment

Background

Generally speaking, couples have regular sex life for more than 12 months, excluding reasons such as contraception and the wife's infertility, and the infertility caused by the man's factors alone can be diagnosed as male infertility [1]. In recent years, the problem of male infertility has received widespread attention at home and abroad. Data show that 15%~20% of the population of childbearing age in my country suffer from infertility, and an average of 1/8 of the couples are affected, and 50% are men's problems [2, 3]. Through the analysis of relevant data in the past ten years, the sperm quality of men around the world has been declining, from a normal value of more than 20 million/mL to more than 15 million/mL today [4]. The causes of infertility include changes in reproductive hormones and semen quality, decreased gonadal function, sperm genetics, and other systemic factors. The treatment is mostly symptomatic medication, and the clinical efficacy is poor. Based on the theory of "differentiation and treatment", this article explores the internal relationship between Damp-Heat (Etiological terms. It refers to a disease. The combination of heat and dampness.) physique and male infertility, and seeks new methods and new ideas for the treatment of male infertility.

Investigation and research on heat and humidity quality

The definition, causes and physical and mental characteristics of Damp-Heat physique

Damp-Heat physique is characterized by rich body shape, greasy dirt, prone to acne, carbuncle and hemorrhoids, bitter mouth, dry mouth, tired body weight, dry or sticky stool, short and red urine, damp scrotum, red tongue and yellow greasy coating, and slippery pulse, etc [5]. It can transform into phlegm dampness, Qi Deficiency (It refers to the syndrome manifested by the lack of Positive Qi in the human body and the decline of visceral function.), and yin Deficiency over time. Professor Wang Qi believes that the main cause of Damp-Heat physique is lack of congenital endowment, or living in wetlands for a long time, or preference for eating fat and sweet, or long-term drinking, or spleen and stomach insufficiency, or emotional insufficiency, or lack of exercise. Psychological characteristics include introverted personality, unstable temperament, irritability, and it is difficult to adapt to humid environments and hot and humid seasons [6].

Epidemiological investigation of Damp-Heat physique

The research of Professor Wang Qi's research group found that about two-thirds of the population in my country has a biased physique, of which 9.88% have Damp-Heat physique, ranking second among the eight types of biased physiques [7]. Xie Yalan judged and classified the physique of 173 men in traditional Chinese medicine, and found that in the biased physique of infertile patients, the Damp-Heat (23.7%) accounted for the largest proportion [8]. This may be because people's lives and work circles are becoming more complex today, and they often get together and drink, all night long, without restraint; or unregulated diet, preference for sweet and greasy things; or affected by the stressful work and living environment, unable to comfort one's own views, often depressed, resulting in depression, reluctance to eat, injury to the liver and spleen, Breeding the Evils (A core term closely related to the occurrence of diseases and the process of diagnosis and treatment.) of phlegm-dampness and stagnation of heat; or being in a humid and sultry environment for a long time, recurring the invasion of external dampness, making the Damp-Heat syndrome more obvious.

Damp-Heat physique and Damp-Heat syndrome

Why the syndrome has disappeared, but the infertility is still difficult to cure? The crux of the problem lies in the physical "soil" problem. The formation of physique predates the disease and runs through the whole life process. Under their different genetic backgrounds, the susceptibility to certain pathogenic factors and the susceptibility and tendency of certain diseases are also different, so many specific diseases have been produced [9]. Damp-Heat physique mainly reflects the overall state of the body through physical characteristics, common manifestations, psychological characteristics, onset tendency, and adaptability. Damp-Heat syndrome is

only a clinical symptom that appears at a certain stage of disease development and changes with disease. Changes are transient and dynamic. The treatment of Damp-Heat syndrome aims to eliminate the pathological products in a relatively short time, and solve the main syndrome that patients most urgently need to improve through the method of syndrome differentiation and treatment, so as to prevent the disease from spreading or aggravating, which belongs to the state of treating the disease. Therefore, the selection of prescriptions and drugs mainly start from the etiology, disease nature, and disease location. The conditioning of Damp-Heat physique is a long process, which can treat both pre-existing diseases and pre-experienced diseases. By improving the biased physique, the Imbalance of Yin and Yang (Etiological Pathology Terms. An overview of the pathogenesis. If the dynamic balance of yin and yang is destroyed, the Imbalance of Yin and Yang will appear, which will lead to the occurrence and development of diseases.) in the human body can be adjusted to achieve prevention before the disease, early treatment of the disease, prevention of the change of the existing disease, and recovery of the disease. The prescription of the medicine should be aimed at the "diffuseness of the whole body" of Damp-Heat and the "lasting effectiveness" of the medication. It is necessary to choose the products of Bitter Cold (Based on the theory of traditional Chinese medicine, bitterness can dry dampness, and cold can clear heat.) and Damp-Drying (Chinese medicine efficacy. Bitter and dry, spicy and dry medicine, can dispel dampness Evil.), but also to choose the genus of Sweet-Cold (Gan can nourish yin, and cold can clear heat.), mildly permeable, aromatic and bitter pungent. In addition, the coexistence of Damp-Heat physique and Damp-Heat syndrome is also common in clinical practice. For this kind of physique-based situation and syndrome-based symptoms, the symptoms should be treated urgently, and the root causes should be treated slowly, and the symptoms and symptoms should be treated first, and then the constitution should be adjusted.

Special prescriptions for Damp-Heat physique

The Damp-Heat physical conditioning treatment is represented by Yinchenhao decoction, Sanren decoction, Longdan Xiegan decoction, Huopu Xialing decoction, Ganlu Xiaodu Dan, Xiehuang San, etc. Commonly used medicines for eliminating Damp-Heat include Huangqi (*Astragalus Radix*), Huanglian (*Coptidis Rhizoma*), Huashifen (*Talc*), Cheqianzi (*Plantaginis Semen*), Yinchen (*Artemisiae Scopariae Herba*), Cangzhu (*Atractylodis Rhizoma*), Huangbo (*Phellodendri Chinensis Cortex*), Niuxi (*Achyranthis Bidentatae Radix*), Yiyiren (*Coicis Semen*), Fuling (*Poria*), Bohe (*Menthae Haplocalycis Herba*), Jinyinhua (*Lonicerae Japonicae Flos*), Lianzi (*Nelumbinis Semen*), Chixiaodou (*Vigna Semen*), Danzhuoye (*Lophatheri Herba*), Baibiandou (*Lablab Semen Album*), Guanghuoxiang (*Pogostemonis Herba*), etc. The formation of Damp-Heat physique is affected by the congenital, acquired and natural social factors. People with Damp-Heat physique are often accompanied by poor Qi and spleen and stomach dysfunction. Therefore, the treatment can be started from the liver and spleen. In addition to the medicine and diet adjustment, it can be combined with the cycle. It can be adjusted in all aspects through Scraping (Use a smooth-edged porcelain or coin to dip vegetable oil or warm water to scrape the neck, shoulder blades, back or intercostal space, and repeat several times from top to bottom, from the inside to the outside, until the skin turns purple.), Puncturing (According to the theoretical guidance of acupuncture and moxibustion of traditional Chinese medicine, the needle is inserted into the human body at a certain angle at the acupoint, and the human acupoint is stimulated by means of lifting, inserting, twisting and other methods for disease treatment.) and Cupping (Cupping is an external therapy that uses a can as a tool, and uses methods such as combustion, suction, and steam to create negative pressure in the can, so that the can is adsorbed on acupoints or a certain part of the body surface to generate benign stimulation and achieve the purpose of adjusting body functions and preventing diseases. method.), Qi Gong (In ancient times, it was called Daoyin, which, like meditation, yoga and meditation, belonged to the category of relaxation therapy.biood), middle and long distance running, and acupuncture.

Treating male infertility from Damp-Heat

The basic pathogenesis of male infertility is Damp-Heat, Blood Stasis (Blood Stasis refers to the blockage of blood flow, while Blood Stasis is a

pathological product formed by poor blood flow to a certain extent, which is a visible Evil.), and Deficiency. Most of them have more than two pathologies. In the empirical evidence, the Damp-Heat betting type is the most common. Damp and heat are mixed, stay in the Lower Energizer (The name of the body part, which is one of the three energizers. The lower part of the Sanjiao refers to the part of the lower abdominal cavity from the lower mouth of the stomach to the second yin.), accumulate dampness and generate heat, leading to Qi and Blood (A combination of air and blood. It is two important substances necessary for human life activities.) congestion, making infertility stubborn and difficult to heal. Therefore, the treatment should be to clear heat and remove dampness, remove Blood Stasis and remove turbidity, and then guard the pathogenesis. The clinical application of Damp-Heat syndrome also needs to distinguish the difference between dampness and heat, and the medications are also different. If the symptom sees bitter mouth, the place where the liver meridian passes by will cause fire and boil, and the tongue and pulse condition is like liver and gallbladder fire. Longdanxiegan decoction should be added or subtracted; Shengzhi Zhuang, give Sanren decoction plus and minus effect test; if both heat and humidity are equal, the two are combined plus and minus. Clinical syndrome often focuses on changes in dampness and heat, and those who use the two alternately, if the imaginary phenomenon is obvious, a little supplementary benefit can be added, and there is no need to stick to it. Clinical addition and subtraction: For those with anorexia, backache, spleen and kidney Deficiency, add Xianling Spleen, Morinda officinalis, etc.; if the semen is infected with inflammatory cells, add Pugongying (*Taraxaci Herba*), Baicaoogen (*Pemisetumflaccidum Griseb*), Tongcao (*Tetrapanacis Medulla*), Jinyinhua (*Lonicerae Japonicae Flos*) and other heat-clearing and detoxifying products; sperm For low vitality, add Tusizi (*Cuscutae Semen*), Xiangbichong (*Curculio*) and other kidney-tonifying products; for those with poor sperm motility and stasis, add Chuanxiong (*Chuanxiong Rhizoma*) and Danshen (*Salviae Miltiorrhizae Radix Ethrhizoma*).

Dampness, heat and Qi deficiency

Prolonged dampness and heat will inevitably lead to a deficiency of Positive Qi. The evil of dampness and heat is most likely to be contained in the spleen and stomach, which affects the formation and transportation of acquired Qi and Blood, resulting in the imbalance of the Activities of Qi (The noun of physiology. Generally refers to functional activities, to summarize the physiological or pathological activities of various organs.), the stagnation of the blood flow, and the lack of nourishment in the whole body, resulting in Qi deficiency. In addition, Evil of damp heat can directly damage vitality and cause Qi deficiency. Patients with Damp-Heat and Qi deficiency often present with dry skin, significant deprivation, deafness and tinnitus, pharyngeal mucus, irritability, upset and insomnia, slow forgetfulness, nausea and bad breath, decreased appetite, dry or sticky stools, shortness of breath, fatigue, do not like activities, lack of energy and other signs of spleen and kidney Qi deficiency, dampness and heat.

Damp heat and Yang deficiency

The relationship between Damp-Heat and Yang Deficiency is more complicated. Long-term consumption of Yang Qi by the Evil of dampness and heat can lead to Yang deficiency. Yang deficiency in the spleen and stomach is the prerequisite for the formation of Damp-Heat. When analyzing physical characteristics, Wang Qi clearly pointed out that Yang-Deficiency physique is easy to feel damp Evil, damp Evil is stagnant and heat is formed, and Damp-Heat physique is formed over time [10]. Clinically, the methods of warming yang and clearing away heat, invigorating spleen and eliminating dampness are mostly used, and Zisheng Pills and Coix lachryma-jobi Fuzi Patrnia Powder are used for treatment. Mahuang (*Ephedrae Herba*), Guizhi (*Cinnamomiramus*), Rougui (*Cinnamomi Cortex*), Wuzhuyu (*Euodiae Fructus Ructus*), Fuzi (*Daconiti Lateralis Radix Praeparata*) etc. are commonly used in clinical practice, and the most important thing is warming Yang.

Long-term stagnation of Damp-Heat and loss of Yin fluid

Damp-Heat and Yin deficiency have the same disease. One is the abnormal metabolism of water and fluid that stops gathering in the body, the other is the decrease of Yin Fluid (Anatomical structure name. A general term for various bodily fluids such as semen, blood, body fluids, and fluids.) in the

viscera. Damp-Heat hinders the spleen and stomach from transporting and transforming water, Qi and Blood are transformed into a source of Deficiency, and kidney Yin deficiency is formed due to loss of kidney nourishment. In addition, the main pathogen of Damp-Heat is heat, and the symptoms of heat-prosperity can be seen at the beginning of the disease, and patients like to "Clear the Fire" (Chinese medical terminology. Refers to heat-clearing and detoxification.) when they eat, and the medical treatment is to clear heat, and they are easy to burn the Yin fluid. Although both water dampness and Yin fluid are morbidity and normal, one evil and the other positive, they are essentially fluid metaplasia. For example, the Damp-Heat Evil is dominated by water dampness, and it is easy to damage the Yin fluid. As the saying goes "Evil water flourishes for one point, and righteous water loses one point." In patients with long-term physical weakness and old age, both Yin Qi will be reduced by half, and Yin deficiency and yang hyperactivity are prone to appear, which can make damp pathogens easy to change from Yang, turn into damp heat, and damage Yin and Yang. And even spleen and kidney yang Deficiency, transpiration and Qi stagnation, prone to water dampness, aggravating the original Damp-Heat Evil. Damp heat and Yin Deficiency are intertwined, the course of the disease is lingering, and each other is cause and effect, forming a syndrome of Yin Deficiency and Evil prosperity Professor Wang Qi's treatment is to Nourish Yin and Nourish the Kidney (It is a professional term of traditional Chinese medicine treatment.), exudate dampness and relieve heat. He often uses Shengjing Zanyu Decoction (self-prepared prescription), and makes good use of a large number of Chinese herbal medicine that Nourish Yin and Nourish the Kidney and nourish the essence, supplemented by Poria, Alisma, Psyllium, etc. Exuding dampness and releasing heat, the effect is significant [11].

Damp-Heat phlegm and Blood Stasis

Among the pathogenic factors of infertility, there are not only due to Deficiency, but also due to Evil. Excessive Evils are responsible for the disease. The three Evils of dampness, phlegm, and Blood Stasis are frequently seen in the syndrome differentiation of many abnormal reproductive diseases. The three Evils of dampness, phlegm and Blood Stasis are mostly caused by the dysfunction of the five internal organs, which leads to the obstruction of the seminal chamber, the seminal tract or the orifice. The ancients said: "All dampness is swollen, all belong to the spleen." The disease caused by dampness is centered on the spleen and stomach, the spleen loses its function of health, and the dampness is endogenous. The spleen is located in the center and is closely related to the five internal organs. Moisture produces dampness. that is, "Weakness of kidney Qi is caused by dampness". Liver dampness is abnormal. Activities of Qi is stagnant, and dampness can also be generated by wood taking advantage of spleen soil. dampness will be stagnated for a long time and heat will be transformed into phlegm and phlegm. Wet inside. Later, triggered by improper diet, emotional dissatisfaction, external feelings of cold and dampness, etc., it traverses the meridians, blocks the Lower Energizer, the fine chamber, and the fine orifice, leading to infertility. The pathological connection between the three Evils is due to dampness or due to spleen and kidney Deficiency, or stagnant liver Qi, or body fat and wet person, or external feelings of dampness, inducing internal dampness, all from water to dampness, dampness Gathering to drink, drinking to condense into phlegm, phlegm obstructs the essence and collaterals, or damp phlegm accumulates for a long time to dissipate heat, causing damage to the essence and collaterals and causing stasis. Therefore, there are complex pathological changes among the three Evils in the clinic. Professor Bin Bin's team used the four methods of "Clearing, Replenishing, Tonifying, and Benefiting" (These are concepts in traditional Chinese medicine.) flexibly when treating infertility [12]. Damp pathogen enters the collaterals, condenses into phlegm, phlegm and dampness intersect each other, fumigation of the semen chamber, resulting in semen thickening, resulting in poor semen liquefaction and decreased sperm motility; long-term accumulation of Damp-Heat, stagnation of Qi and Blood, formation of Blood Stasis, phlegm and stasis glued. The stagnant sperm chamber affects the internal environment of sperm development and maturity, reduces sperm motility, and causes or aggravates the occurrence of infertility. Therefore, it is recommended that in the process of prevention, diagnosis and treatment of infertility, the corresponding treatment should be used on the basis of syndrome differentiation and treatment. Prescriptions for dispelling dampness can achieve the purpose of

preventing disease beforehand and improve clinical efficacy.

Damp-Heat block, emotional disorder

"Men dominates Qi". People think that men are just vigorous, but seldom depressed. However, in today's society, men are facing greater pressure to survive. Patients with Qi stagnation affected by external factors are affected by pathology. It is more likely to cause Stagnation of Liver Qi (Liver Qi stagnation is a disease caused by the imbalance of the Activities of Qi caused by the liver's dredging function.), Deficiency of Liver-Qi (It refers to the deficiency of liver essence and Qi, and the dysfunction of "holding blood".), and increase the susceptibility to infertility. The fiery Evil Qi caused by stagnation of Qi tends to stalemate with the damp Evil, and bets are placed along the meridian, which accumulates in the yin organs and the essence of the liver meridian, resulting in impotence and other sexual dysfunctions, and it is difficult for semen to liquefy and cause infertility. For example, "Miscellaneous Medicine of the Ming Dynasty · Juan 3" mentioned examples of depression caused by fire and even dysfunction, and "Jing Yue Quanshu-Impotence" pointed out: "The heat and dampness are intense, and even the tendons are relaxed." For this type of infertility, Xia Chunfeng proposed on the basis of heat-clearing and dampening drugs, supplemented with products for soothing liver and relieving depression, nourishing kidney and nourishing yin, such as Chaihu (*Bupleuri Radix*), Zhike (*Aurantii Fructus*), Chishao (*Paeoniae Radix Rubra*), Huangjing (*Polygonati Rhizoma*), Nüzhenzi (*Ligustrilucid Fructus*) etc. [13]. It can prevent liver stagnation and transform fire, rob kidney yin and transform into kidney yin Deficiency, and can effectively increase the number of sperm.

Damp-Heat physique

Male infertility patients with Damp-Heat are becoming more and more common. Due to the Deficiency of the spleen and kidney, the fluid movement and transformation are lost, the pathological products such as dampness, heat, phlegm, and Blood Stasis tend to accumulate in the body to cause various diseases, and it is difficult to heal and recurrent. And the longer the course of the disease, the more it hurts Positive Qi and enters a vicious circle. Based on the purpose of preserving health and preventing disease first, combined with the physiological characteristics of Damp-Heat physique, Wang Qi used the method of clearing Damp-Heat, soothing liver and gallbladder, and regulating the spleen and stomach, using the addition and subtraction of "Wang Qi Damp-Heat regulating body prescription" [14], which consists of Huoxiang (*Agastache Rugosus*), Yiyiren (*Coicis Semen*), Bohe (*Menthae Haplocalycis Herba*), Roudoukou (*Myristicace Semen*), Jinyinhua (*Lobnicerae Japonicae Flos*), Pugongying (*Taraxaci Herba*), It is composed of Machixian (*Portulacae Herba*), Danzhuye (*Lophatheri Herba*), and Chixiaodou (*Vignae Semen*). The combination of all medicines can not only diffuse dampness, but also has the effect of eliminating dampness-heat.

Conclusion

Damp-Heat is not only a pathological product, but also the root cause of the disease. Therefore, the clinical treatment of this disease should not only invigorate the kidney, but also not focus on it. Other treatment methods should be taken into consideration at the same time. For those who are deficient due to reality, we must not be deceived by the appearance of fertility, seek replenishment in vain, ignore the origin of physique, and violate the precepts of fertility, fertility and reality. Healing diseases should be based on the principle of clearing away heat and removing dampness in the treatment of dampness and heat. If the Evil is removed, the path will be cleared. The Qi and Blood flow smoothly. If the dampness and heat are removed, the sperm living environment is clear, the blood flow is smooth, and enough to nourish, the vitality is sufficient, and the survival rate is increased. Most of the clinical disease syndromes are not single, and those with insufficient evidence can be slightly supplemented. In addition, in all stages of male infertility, attention should be paid to the regulation and protection of spleen and stomach functions. It is not allowed to use Bitter Cold and Damp-Drying products to prevent the Evil from going away, the Positive Qi is weak, and the power to drive away the Evil, recurrent attacks, pay attention to cultivating a good diet, work and rest Get used to proper exercise to keep your mood comfortable. In addition, it is necessary to distinguish the Damp-Heat physique from the Damp-Heat syndrome. The

medication of Damp-Heat syndrome can stop the illness, and people with Damp-Heat physique should care for Positive Qi throughout the disease and even after the cure. At present, clinical Damp-Heat syndrome is relatively easy to treat, but physical conditioning is more difficult. So for Damp-Heat physique, it is necessary to pay attention to "prevent the disease before it occurs, and prevent the disease from changing".

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