

A Review of Study of Yellow Water Disease in Tibetan Medicine Theory

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Abstract Based on the Tibetan medical theory, the relevant information and diagnosis and treatment ideas of yellow water disease are discussed, and Mongolian medicine also takes its own basic medical theory as the starting point to discuss and explain, while traditional Chinese medicine has made less theoretical description of this disease, but there are also some understandings and treatment guidelines. This paper mainly discusses the cognitive aspects of this disease, starting from the essence, analyzes the relationship between this disease and traditional Chinese medicine diseases as well as modern medicine, and makes a theoretical description for a better understanding of the yellow water disease.

Key words Yellow water disease, Tibetan medicine, Traditional Chinese medicine disease, Modern medicine

1 Introduction

The record of Yellow Water Disease first came from the Tibetan medical work *Medical Canon in Four Sections (Si Bu Yi Dian)*, which interpreted the disease as "yellow water" and "disease". According to the theory of Tibetan medicine, after eating, some subtle substances are transformed into blood and bile after the action of body organs, thus forming "yellow water", which is normally distributed in body fluids. However, when it is given the definition of "disease", its composition and nature often change, when the dregs of body fluid are deposited in the gallbladder, the essence of bile deteriorates into pathological "yellow water", which runs through certain parts of the body and causes corresponding diseases. In other words, Yellow Water Disease is a general term for a series of diseases caused by diseased yellow water. In addition, in the system of Tibetan medicine, rheumatism is also included in the Yellow Water Disease category. Later, through the communication between different regions and races and the reference and study of various medical theories, the disease has been more widely recognized, and has been spread to Mongolian medicine, traditional Chinese medicine and other theoretical systems, forming a related discussion based on the analysis of the disease and the diagnosis and treatment ideas of various medical theories. In this paper, we mainly explored and summarized the similarities and differences of Yellow Water Disease in several major medical categories through relevant literature review.

2 Yellow Water Disease under different medical theoretical systems

2.1 Development and formation of Tibetan medicine Human beings and the progress of medicine complement each other. Medicine is born for human beings and promotes the progress and de-

velopment of human medicine. As early as ancient times, Tibetan history books had records about medicine, and they believed that the earliest medicine used for treatment was water, which was closely related to their innate feeding habits. When there was no fire, Tibetans lived on hunting, wild fruits and raw food. Such living habits were bound to be positively correlated with the prevalence of gastrointestinal diseases. Later, the emergence of fire made them learn to use water to boil food, so water became their first medicine to cure diseases. Through the accumulation of life experience and the continuous exploration of the outside world, Tibetan medicine sprouted and gradually matured in the social practice of social organization and individual treatment. With the accumulation of life experience^[1], Tibetan medicine has created its own theoretical system on the basis of absorbing and integrating the essence of traditional Chinese medicine, Persian (ancient Arabic) medicine, Greek medicine and Indian medicine. It is an important component of traditional Chinese medicine^[2].

2.2 Yellow Water Disease in Tibetan medicine In the theoretical system of Tibetan medicine, there is a view that the normal physiology of the human body is maintained by the coordination and balance of the three systems of "three factors" "seven substances" "and three excretions". Specifically, "three factors" are "Long (basically equivalent to wind)", "Chiba (basically equivalent to fire)" and "Peigen (basically equivalent to earth and water)", which govern the movement of seven material bases (dietary essence, blood, meat, fat, bone, bone marrow and essence) and three excretions (stool, urine and sweat). If these three excretions change, the balance will be broken, which will lead to the occurrence of disease. The formation of "yellow water" is described in the Tibetan medical classic *Medical Canon in Four Sections (Si Bu Yi Dian)* as follows: "the essence of food produces blood, the turbid matter of blood produces bile, and the essence of bile produces yellow water, which is distributed in the internal and external organs of meat and bones, especially between the muscles

and joints on the body surface, there are four handful of their own in the body. Under normal physiological conditions, yellow water has the functions of regulating body fluid and lubricating joints, and its state is light yellow liquid. Due to the improper living behavior (living in cold and damp environment), diet (too much oil and fat) and other aspects of the human body, the metabolic waste in the blood is not eliminated in time and accumulates in all parts of the body, forming "yellow toxic water", which is the source of all diseases. When yellow water is in the body, the balance of prosperity and decline is destroyed and disordered, which invades the viscera, skin, bone and joint systems, resulting in the formation of a series of diseases related to yellow water, such as urticaria caused by skin lesions, arthritis caused by joints, visceral accumulation of yellow water and even abscess. Such diseases are collectively referred to as "Yellow Water Disease" in Tibetan medicine^[3]. In view of the treatment principle of Yellow Water Disease, the *Medical Canon in Four Sections (Si Bu Yi Dian)* pointed out that the fundamental point is to reduce the formation of yellow water or reduce the content of yellow water that has been formed, that is, yellow water is transformed into "dry yellow water". Let the yellow water dry up, so as to eliminate a series of diseases caused by yellow water.

2.3 Yellow Water Disease in the theoretical system of Traditional Chinese Medicine Yellow Water Disease is closely related to water metabolism in traditional Chinese medicine. Water in traditional Chinese medicine has a rich and extensive meaning, in a broad sense, it is a general term for "water" in all physiological and pathological state of the body, including semen, milk, menstrual water, tears, saliva, nasal mucus, sweat, urine, blood, bone marrow, and cerebral pulp. Under normal physiology, water has the functions of transforming essence (generally referring to various subtle substances), nutrition, moistening, transportation and so on. Water can also become turbid due to pathology (generally referring to various pathological products), and then become the pathological products of "water", "dampness", "phlegm" and "fluid retention" that damage, invade and block the human body; in a narrow sense, "water" refers to body fluid^[4]. In traditional Chinese medicine, water disease was first recorded in (*Huangdi's Internal Classic*, involving a narrow range, only referring to the disease of edema, through the development of later generations, all diseases caused by the dysfunction of the five internal organs, resulting in the abnormal metabolism of water and the abnormal naturalization of body fluid are classified as water disease. For example, the diseases of kidney, liver, heart, lung and other systems involved in modern Western medicine are also included in the category of water diseases^[5]. The similar expression of Yellow Water Disease in traditional Chinese medicine and Tibetan medicine lies in balance, that is, the balance of three systems pointed out by Tibetan medicine from the source, while traditional Chinese medicine pays attention to the balance of yin and yang, which is the basis of all life activities, and water metabolism is closely related to the balance of yin and yang. In traditional

Chinese medicine, the occurrence of Yellow Water Disease is closely related to the disruption of the balance between yin and yang. The imbalance of yin and yang leads to the disorder of water metabolism, and the physiological water becomes turbid due to pathology, which results in the invasion of the relevant organs of the body, and in a series of diseases related to the disorder of water metabolism. The direct pathogenic substance of Yellow Water Disease is "yellow water". In traditional Chinese medicine, the pathogenic substance of water disease lies in the four major kinds of pathological water, namely, water, dampness, phlegm and retained fluid. The related properties of these four kinds of pathological water are described in this way. From the physical state, the thick and turbid water is phlegm, the clear and thin water is retained fluid, and the clear and clear water is water. Dampness is a state in which water diffuses in human tissues^[6], with the weakest form and quality. According to the nature of water, it can be divided into yin edema and yang edema, yang edema is mostly caused by exogenous wind-heat or wind-cold; yin edema is caused by excessive fatigue, or indulgence, or physical weakness, resulting in Yang deficiency of the spleen and kidney, and abnormal transportation and transformation of water and dampness^[7]. Excessive water will overflow on the muscle surface, characterized by edema of the head, face, limbs or the whole body^[8], and severe ascites and pleural effusion. As for the understanding of dampness, Wu Jutong's work *Systematized Identification of Warm* discussed that "dampness is yin pathogen, which can not be solved by non-warm", dampness tends to be downward and heavy turbidity, and heavy turbidity belongs to yin^[9]. Dampness flows to joints, water overflows skin, both exogenous and endogenous, with limbs, joints, muscles, meridians and joints as the main lesion sites. Traditional Chinese medicine believes that phlegm is formed before body fluid is formed, which can be divided into tangible and intangible. Tangible phlegm is visible, palpable and audible. It is solid phlegm with high concentration, thick texture, semi-solidification and low fluidity. Intangible phlegm is invisible, palpable and inaudible, but its symptoms are not visible^[10]. Phlegm syndrome involves a wide range of parts, it can reach the skin, viscera and meridians, and flow into the joints of limbs to cause corresponding diseases^[11]. The retained fluid is thinner than phlegm and weaker in fluidity than water. It mostly stays in the intermittent or loose parts of the viscera and tissues such as the stomach and intestines, the chest and hypochondrium, and the limbs. The syndrome depends on the location of the disease. The water overflows widely in the skin, gathers in the partial is the phlegm retained fluid. Although phlegm retained fluid are everywhere, they mostly stay locally, and phlegm retained fluid can form edema when they are widely overflowing in the skin^[6]. The factors leading to the occurrence of Yellow Water Disease include both internal and external factors. The internal cause lies in the imbalance of the three major systems in the theoretical system of Tibetan medicine. The external factors show that environmental factors can also lead to the formation of Yellow Water Disease. If

it is in a humid environment for a long time, it will lead to dampness invading the body. Its internal cause lies in the disorder of water metabolism in the body, and its nature is related to dampness syndrome in traditional Chinese medicine. The relationship between the two is that when pathogenic Yellow Water Disease is on the skin, it can cause itching, flaky papules, pox rash, *etc.*; in traditional Chinese medicine, dampness can also be found in the skin, and eczema is its manifestation. When the yellow water penetrates into the muscles, the symptoms of muscle swelling and convulsion appear; similarly, the symptoms of dampness syndrome in the muscles are acid, sleepy, tired, and fatigued. If the yellow water flows into the bone, it will cause pain in the bone, difficulty in extension and flexion of the bone and joint, resulting in inconvenience in movement, and then develop to swelling, itching and rash at the joint; when dampness spreads in the skeleton, it is also manifested as pain and inflexible joint stretching, such as scapulo-humeral peri arthritis, cervical spondylosis, low back pain, rheumatism and arthritis; for example, Yellow Water Disease in Tibetan medicine is called osteoarthritis in traditional Chinese medicine. Dampness falls on the five viscera and six bowels, which will lead to spleen deficiency, bad stomach, halitosis, chest tightness, unformed stool, indigestion and other diseases^[3]. Liu Ning, chief physician of Acupuncture and Moxibustion Department of Beijing University of Chinese Medicine, pointed out that dampness can be exogenous or endogenous, that is, it can be divided into exterior and interior. The main manifestations of exogenous dampness are body pain or adverse flexion and extension of limbs, and the clinical manifestations are often rheumatic diseases^[12]. Life experience also tells us that the probability of suffering from rheumatism in a humid environment for a long time will be significantly increased, while endogenous dampness is often manifested as fatigue, loss of appetite and so on. Yellow Water has both cold and heat after pathological changes, that is, cold (white) Yellow Water Disease and hot (black) Yellow Water Disease. When Peigen and Long are combined, it belongs to cold; black is caused by blood and Chiba, which belongs to heat, such as skin, muscle, meridian, bone, viscera and other parts^[13]. Dampness is also divided into cold and heat in traditional Chinese medicine. Dampness pathogen and cold attack people and cause disease, which is called cold-dampness. The main manifestations are fatigue, aversion to cold, cold limbs, vomiting, fullness in the chest and abdomen, *etc.* The combination of dampness and heat is called damp-heat, which is characterized by difficulty in flexion and extension, itchy skin papules, yellowing of the face, *etc.*^[14]. These symptoms are similar to the Yellow Water Disease in Tibetan medicine and have the same manifestations. For diseases caused by dampness, the treatment policy of traditional Chinese medicine lies in the word "eliminating dampness", which varies according to different types of dampness; external dampness is to gradually reduce exposure to humid environment to avoid its invasion, while internal dampness is to pay attention to personal recuperation, strengthen the spleen and eliminate dampness as the key, promote

water metabolism in the body, and can also be supplemented by acupuncture and cupping therapy, with the corresponding treatment of traditional Chinese medicine decoction for severe cases.

2.4 Yellow Water Disease in modern medicine In the field of Tibetan medicine, yellow water mainly causes diseases between skin and muscle, viscera and joints, causing the same manifestations as diseases in modern medicine, such as herpes or dermatitis, visceral ulcers and rheumatoid arthritis. In modern medicine, it is believed that the cause of herpes is the infection of herpes virus, and atopic dermatitis is the most common form of dermatitis. The cause of infection can be traced back to substandard hygiene, decreased immunity, damaged barrier, *etc.* The surface protuberances are red and painful. Visceral ulcer, such as gastric ulcer, is commonly caused by bacterial infection, especially *Helicobacter pylori*, or drug-induced stimulation, which affects the synthesis of prostaglandin (PG), resulting in gastrointestinal injury, weakened repair ability and ulcer wound formation. In addition, it can also be affected by emotional diet. Rheumatism is a chronic, systemic and inflammatory autoimmune disease in modern medicine. Rheumatoid arthritis can be seen in adverse living environment factors, such as not paying attention to cold and warm at ordinary times, or often living in humid areas. In addition, it can also be secondary to autoimmune diseases caused by bacterial infection (with Group A *Streptococcus* as the main pathogen). Immune hyperfunction induces immune cells to attack normal tissues, causing rheumatic diseases in the long run, which is often manifested as joint pain, bone pain, swelling and itching, which can be aggravated to joint ankylosis or deformation in the late stage^[15]. Modern medical explanations for the occurrence of Yellow Water Disease can be attributed to microbial infection, immune disorders, decreased resistance, long-term exposure to humid environment, personal emotions and stress, which ultimately lead to the accumulation of various human metabolic wastes, such as carbon dioxide, uric acid and inflammatory pus, as well as various inflammatory mediators that cause rheumatic diseases and various toxins produced by pathogenic microorganisms, the purulent fluid of pathological changes invades the subcutaneous and periosteal bone cavities of the human body, causing a number of symptoms such as redness, swelling, heat and pain. In modern medicine, chemical drugs are the main treatment for the above diseases. Taking rheumatoid arthritis as an example, targeted therapy developed in recent years has been widely favored, such as the use of liposome nanoparticles as a carrier for conventional therapeutic drugs such as non-steroidal anti-inflammatory drugs (NSAIDs) or disease-modifying anti-rheumatic drugs (DMARDs). Deliver to the lesion site purposefully, thus reducing the toxic and side effects of drugs on non-lesion sites^[16]. In addition, surgical treatment is also one of the characteristics of modern medical disease treatment.

3 Conclusions and significance

Through the analysis of Yellow Water Disease in the theoretical system of Tibetan medicine, we traced back to its source and it is

related to the pathogenic factors in the category of traditional Chinese medicine and the pathogenesis of modern medicine. In case of the imbalance of "three factors" in Tibetan medicine, namely, "Long (basically equivalent to wind)", "Chiba (basically equivalent to fire)" and "Peigen (basically equivalent to earth and water)", yellow water comes from the essence of bile pathological changes, which travels inside and outside the viscera of flesh and bone, mostly between skin and muscle, viscera and joints, affecting the circulation of qi and blood wherever it goes, followed by external diseases. In traditional Chinese medicine, water metabolism is abnormal, and it is believed that the main culprit of yellow water is dampness, and that dampness and heat formed by the combination of dampness and heat are the most typical, both of which attack the vital points, leading to adverse flexion and extension, papules and other diseases. Finally, we discussed the defense function in modern medicine, pointing out the formation of yellow water due to bacterial infection, immune system dysfunction and other reasons, and finally coming down to the disease caused. Through the intersection of different medical theoretical systems and the exploration from multiple perspectives, we can have a clearer understanding of Yellow Water Disease, integrate the guidance of various medical theories, and provide a more solid guiding basis for the treatment of Yellow Water Disease based on syndrome differentiation and treatment.

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