

Discussion on the Correlation Between Yang Deficiency & Cold-dampness and Malignant Tumors Based on "Diseases producing the liquid that is clear and chill all result from coldness"

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Abstract: Tumor is defined as a kind of chronic diseases by the World Health Organization. The integrative traditional Chinese and western medicine works well on the treatment of tumors, even in advanced patients or patients with recurring and metastatic tumor. However, the pathogenic mechanism of tumors is still unclear. Therefore, based on the 19th pathogenesis in *Yellow Emperor's Internal Class* that "Diseases producing the liquid that is clear and chill all result from coldness", the paper explores the etiology pathogenesis of malignant tumors, and the correlation between which and tumor recurrence and metastasis, and also discusses the rules for the treatment of tumors at various stages with great method of warming yang for dispelling cold.

Key words: Malignant tumor; Yang deficiency and cold-dampness; Warming yang for dispelling cold

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During the treatment process of malignant tumors, Chinese medicine plays important effects on relieving the pain from cancer, reducing side-effects of radiotherapy and chemotherapy, preventing tumor recurrence and metastasis and improving patients' life quality, but all of those are adjuvant therapies for patients underwent Western medicine treatments, and belong to symptomatic treatments as they can only suppress the symptoms. Tumors should be discussed and treated from the pathogenesis for achieving the goal of "cure". Based on "Diseases producing the liquid that is clear and chill all result from coldness", this paper tried to refine that the yang deficiency and cold-dampness is a key pathogenesis for tumors to occur and grow, and has explored yang deficiency and cold-dampness's impacts on tumor recurrence and metastasis, and proposed syndrome differentiation and treatment on tumors at different stages.

1 Diseases producing the liquid that is clear and chill & "cold-dampness"

Su Wen • Zhi Zhen Lun said: "Diseases producing the liquid that is clear and chill all result from coldness". The "liquid" in the original text refers to all body secreta in liquid state in general. "Clear and chill" means clear and transparent, faint and cold. It pointed out that the cause for "clear and cold liquid" is coldness, indicating that many diseases with water metabolism disorders result from cold evil. The cold evil damages yang, and yang qi becomes insufficient, and then the blood qi and body liquid turn soft and weak, damp and muddy body liquid accumulate, resulting in water metabolism disorder, which is the cause for cold-dampness to occur. Cold evil is prone to interact with damp evil, causing symptom of cold-dampness.

2 If yang is insufficient, cold-dampness develops.

Zhang Jingyue put forward "Yang is generally insufficient", it was said in *Jingyue Pandect* that "If yang is strong, life is long. If yang is weak, life is short, so yang is never excess". Zhang Jingyue thought that yang was hard to get but easy to lose, and was in short in most cases. Chen Rixin^[1] also believed that majority of modern people usually have insufficient yang and qi as the lifestyle changes. Modern medical studies have shown that the immunity of patients with yang deficiency is weaker and more susceptible to cold evil than before. *Nei Jing* said: "If yang is deficiency, cold develops". If spleen and kidney has yang deficiency, endogenous cold-dampness develops. From the perspective of Chinese medicine theory, the formation of cold-dampness and evil wind is mainly related to the body yang deficiency as well as yin-cold excess. The deficiency and damage of yang results in yang's warming to qi and blood as well as body liquid being weakened. The qi and blood run slowly, even stagnate, that causes cold-dampness. Cold-dampness can damage yang that block running of qi and blood in reverse, which lead to further function disorder of internal organs, and can worsen the stasis of blood, phlegm-damp, retention of food and other tangible things, more seriously, it may produce abdominal mass, and make the disease linger.

3 Yang deficiency and cold-dampness is the key pathogenesis for tumor occurrence and growth.

People get used to explain the causes of tumors with "heat toxin" and "cancer toxin", and believe that tumors are made of pathological products such as heat toxin, stagnation of qi, turbid phlegm, and blood stasis, which ignores a part of traditional Chinese medicine theory that tumors are born from cold. For example, *Lingshu • Origins of Hundred Diseases Chapter* pointed out that "Stasis starts with coldness." *Difficulty • Fifty-five Difficulties* also said that what makes stasis is yin qi. All of these books pointed out that tumors generally come with yin syndrome, and its occurrence and growth are closely related to the evil of yin and cold. *Suwen • The Great Theory of Yin and Yang Phenomena* said: "Yang can promote things transferring to qi, and yin can promote things forming." The qi transferred by yang is insufficient, and the excess things form from yin.

The weak yang qi and excess yin qi in the body causes invasion of cold-dampness, stagnation of qi activity, abnormal transportation of body liquid and stasis of pathological products, such as muddy phlegm, blood stasis and drinking water, and may lead to tumor after a long time^[2]. All the books pointed out that the root cause of tumor is insufficiency of yang qi and excessive cold-dampness.

4 Yang deficiency and cold-dampness promotes tumor recurrence and metastasis.

Tumor recurrence and metastasis is the root reason why tumor is difficult to be cured. Clinical studies have shown that the recurrence and metastasis of tumor is not only related to the surgery of the tumor's primary lesion, but also related to the human body's weak yang, decreased immune function as well as uncontrollable cancer cells^[3]. The hidden evil pathogenesis is a major innovation of the school of febrile disease with the central idea that weakened body resistance and existing evil. This pathogenesis is almost the same as tumor recurrence and metastasis. The cause of tumor recurrence and metastasis is tumor cells lurking in the body, as "hidden evils" lives deep in the body^[4]. As the body is weakened, the normal function of the immune system is affected, while circulating tumor cells and tumor dormant cells take the opportunity to spread outwards, resulting in tumor recurrence and metastasis^[5]. As the disease develops, the qi of cold-dampness and evil stays in the viscera and continuously depletes the patient's yang qi. The patient's righteousness is further depleted. Wherever the yang is deficient or damaged, the tumor may metastasize there, that is the so called "wherever there is deficiency is the area invaded by the evil"^[6]. On the other hand, as removing tumor lesions by surgery damages the patient's yang qi, lowers the patient's immunity, makes yang qi weak and cold, cold phlegm coagulates and blood flow blocks. Yin and evil, like blood stasis and cold phlegm and dampness stasis, interact with each other, over a long period of time, causes trouble, making yang qi more depleted, and forming a vicious circle. Eventually, the cold-dampness overcomes the evil qi, leading to prevailing of evil and weakened body resistance, and hidden evils out causing illness.

5 Differentiation and treatment of malignant tumors at different stages

Some physicians do not differentiate between deficiency and

excess of cold and heat during the treatment process of tumor diseases, and do not study the etiology and pathogenesis of the disease. They one-sidedly thought that tumors are "heat toxins", and misused bitter cold, and heat-clearing and detoxifying drugs in large doses. Regarding the treatment of tumors from cold-dampness, Professor Tong Xiaolin^[7] pointed out that "Cold-dampness is like moss in a pool, of which moss grows luxuriantly on the damp, dark, cold, and sunless area. The typical cold-damp tongue is white and as thick as powder. When it is given enough sunlight for treatment, the moss will be removed by itself." To eliminate cold-dampness, the great method of warming the yang for dispelling the cold shall be used, and the commonly used drugs are: aconite, dried ginger, cinnamon, psoralen and other drugs. Studies have shown that warming yang for dispelling cold medicine can directly inhibit or kill tumor cells, induce tumor cell differentiation and apoptosis, and enhance immunity^[8]. The course of malignant tumors can be divided into three stages

- ① Early stage: The main symptom of tumor shows up, and should be treated with attacking the evil;
- ② Medium stage: Yang deficiency is gradually obvious in patients with tumors at this stage as well as mixture of deficiency and excess, and they should be treated with attacking and supplementing;
- ③ Late stage: Tumor patients at this stage mostly have a great loss of vital energy, and the majority of patients are with deficiency syndrome. These patients should undergo treatment of warming yang and strengthening the body. Tumor patients at different stages should be treated with different priorities between strengthening the body and removing evils according to the level of deficiency and excess.

6 Summary

By discussing on the 19th pathogenesis in *Su Wen • Zhi Zhen Yao Da Lun* that "Diseases producing the liquid that is clear and chill all result from coldness", the author concluded that yang deficiency and cold-dampness is the key pathogenesis of tumor occurrence and growth, explained how yang deficiency and cold-dampness promotes tumor recurrence and metastasis, and proposed to take warming yang for dispelling cold as the treatment method to treat tumor patients by stage and syndrome differentiation. Although the method of warming yang for dispelling cold has been effective in anti-tumor, there is no large-scale systematic randomized controlled studies, and no clinically effective

anti-tumor warming drugs have been introduced. Therefore, we still need to continue exploring the application of warming yang for dispelling cold and how to prevent tumor recurrence and metastasis.

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