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#### **REVIEW**

## Introduction of Zhang Zhong Jing's six-stages pattern of cryopathology



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#### **KEYWORDS**

Zhang Zhong Jing; six-stages pattern; cold damage; Shang Han Lun

## PALABRAS CLAVE

Zhang Zhong Jing; patrón de seis etapas; daño por frío; Shang Han Lun Abstract Traditional Chinese Medicine (TCM) is unique in the medical science world and an indispensable, reliable, and important part of Chinese culture and its civilization. It not only makes an indelible contribution to the prosperity of the Chinese nation but also has its rigorous scientific methods in medicine like Western medicine, such as theoretical and holistic treatment systems. There have been many top, influential TCM physicians over the past thousand years. This overview introduces Zhang Zhong Jing's unique clinical diagnostic pattern, the so-called six-stages pattern of cryopathology.

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## Introducción del patrón de seis etapas de criopatología de Zhang Zhong Jing

**Resumen** La medicina tradicional china (MTC) es única en el mundo de la ciencia médica y una parte indispensable, fiable e importante de la cultura china y su civilización. No sólo hace una contribución indeleble a la prosperidad de la nación china, sino que también tiene sus métodos científicos rigurosos en la medicina como la medicina occidental, como los sistemas de tratamiento teórico y holístico.

En los últimos mil años ha habido muchos médicos de la MTC de gran prestigio e influencia. Este resumen presenta el patrón de diagnóstico clínico único de Zhang Zhong Jing, el llamado patrón de seis etapas de la criopatología.

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## Introduction

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six-stages pattern of cryopathology in «Shang Han Lun». «Shang Han Lun» or «Treatise of Cold Damage Disorder», a very influential medical book in Traditional Chinese Medicine (TCM), was originally called «Shang Han Za Bing Lun»—«Treatise on Cold Pathogenic and Miscellaneous Diseases». The clinical textbook includes contents on diseases evoked by cold damage (CD), doctrine on pulse diagnosis, six-stages pattern identification, miscellaneous disease, dietary avoidance, and treatise. "Treatise on Cold Pathogenic and Miscellaneous Diseases» is partitioned into «Treatise of Cold Damage Disorder» and «Jin Kui Yao Lue» in English known as «Synopsis of Prescriptions of the Golden Chamber». <sup>2</sup>

«Treatise of Cold Damage Disorder» can be interpreted as a doctrine on epidemic/pandemic exogenous infectious disease, its diagnostic methods, and treatment approaches.<sup>3</sup>

To gain the basic understanding and to grasp the essential approach of "CD—伤寒—Shang Han", it is significant to comprehend the term "CD". "CD" literally means injury by the cold. The most important background of the study of the six stages of cryopathology caused by "CD" is the chapter on febrile diseases of the "Huang Di Nei Jing—Su Wen» (素问 热论 Su Wen Re Lun).4

Zhang Zhong Jing composed *«Treatise on Cold Pathogenic and Miscellaneous Diseases»* because of the compassion for the suffering of his fellow citizens. This took place during a period, where war and natural catastrophe caused a course of lethal epidemics. All these miseries had brought death to thousands of people including Zhang Zhong Jings' relatives and family members and in many regions of China. The era was at the time of the last age of the Eastern Han Dynasty.<sup>5</sup>

Zhang Zhong Jing made an enormous contribution in the clinical application of Jing Fang, an ancient Chinese prescription, evolved the six-stages pattern of cryopathology, and still is an honored legend in TCM worldwide.

## Liu Jing Pattern/Six-Stages Pattern of cryopathology

The six-stages pattern of cryopathology in the *«Treatise of Cold Damage Disorder»* determines the symptom manifestations and seriousness of a disease, which is due to the attack of "CD" from the exterior into internal layers or in other words channels.<sup>6,7</sup> These six stages are Tai Yang (TY), Yang Ming (YM), Shao Yang (SY), Tai Yin (TYI), Shao Yin (SYI), and Jue Yin (JY).<sup>8</sup>

In the teaching of *«Treatise of Cold Damage Disorder»*, the three Yang layers are TY, SY, YM, and TYI, SYI, JY are termed as the three Yin layers. "CD" always harms the three Yang channels first, and then processes affecting the Yin channels if untreated. The indication of the three Yang channels ailments is Yang types, hot and their syndromes of an excessive kind, whereas the three Yin channels diseases are Yin types, cold asthenia syndrome.<sup>9</sup>

Basically, "CD" consistently attacks the TY layer first and if the disease in TY is not treated or cured, then "CD" invades the next sphere and the disease arises immediately or after a certain period. In some cases, "CD" directly invades other layers.<sup>10</sup>

#### Tai Yang disease

TY is the ultimate trivial sphere of all channels. TY's role is to control, defense, regulate the exterior of the body, and act

as a protection boundary against exogenous pathogenic invasion.  $^{\rm 11}$ 

Exogenous pathogenic factors, mostly wind and malign cold, always attack the TY layer first. The main symptoms of TY disease are superficial pulse, headache, neck pain, aversion to cold, and fever accompanied by chills. 12

As a result of untreated superficial and hence "CD" progressing into the bladder, the interior pattern of TY disease involving an organ is the bladder. TY bladder syndromes are differentiated into water and blood retention. When "CD" invades the bladder, Yang energy is incapable to transmute water. Consequently floating and rapid pulse, abnormal urination, thirst with a desire to drink, vomiting after prompt consumption of water, and hot flushes are the manifestation of the bladder water retention disorder.<sup>13</sup>

Pathological heat agitates with blood in the lower burner and induces tense sensation or hardness and fullness in the lower abdomen, arises abnormal mental symptoms but the urination is normal. These indications belong to TY blood retention syndrome.<sup>14</sup>

## Yang Ming disease

YM disease, an internal Yang pattern, originates, when untreated "CD" at the TY stage penetrates the YM layer or "CD" invades the YM layer directly from the exterior. The primary characteristic of YM disease is Yang hyperactivity and internal excess heat. The common manifestations are fever without chills, a distended abdomen with pain when palpated, constipation, spontaneous sweating, aversion to heat, no aversion to cold, and a rapid, big pulse.<sup>15</sup>

A differentiation between heat- and asthenia patterns are made in YM disease.

YM channel is abundant in blood and qi. YM heat disease occurs when the YM channel is invaded with pathogenic heat, the heat becomes excessive and brings qi and blood into ebullition. Body liquid leaks to the surface and sweating appear. Dry mouth and yellow tongue coating, thirst with desire for drinking is caused by the exhalation of body fluid. The quality of the pulse is big/large. <sup>16</sup>

YM organ syndrome, also called YM asthenia pattern, are induced by pathogenic heat accumulated in the gastrointestinal section, causing tidal fever with sweating on the extremities, constipation, abdominal pain provoked by pressure, restlessness, delirium, yellow and dry tongue coating, thirst, and a swift, slippery pulse. Excessive heat leads to dryness of the intestine and constipation follows. It also disturbs the mind; therefore, restlessness and delirium arise. Body fluid leaking towards the outside is the reason for sweating, and extreme interior heat damages Yin, which brings up a fever in a tidal form. The flow of the qi in the gastrointestinal area is unbalanced and not in harmony, which causes fullness and abdominal distention. <sup>17</sup>

#### Shao Yang disease

SY disease is a semi exterior / interior pattern. The pattern develops when "CD" penetrates through other channels into the SY channel, the gallbladder heat becomes abundant in the interior, as a pivot between TY and YM, the motion of the regulation mechanism is disturbed and

leads to SY disease or when "CD" straightly invades the SY channel. 18

The main characteristics of SY disease are bitter taste in the mouth, dry throat, dizziness, and a taut pulse. As a result of the gallbladder fire blazing upwards bitter taste in the mouth is present. Heat damages body fluids, therefore dry throat arises. Gallbladder heat accumulated in the interior travels upwards to disturb the area of the head. Consequently, dizziness and blurred vision arise. Disorder of spleen and stomach activity with symptoms like loss of appetite, nausea or vomiting, is because of the stagnated qi of the gallbladder. The combat between the healthy and pathogenic qi characterizes the variation of cold and heat perception. Distention in the thorax area, intercostals pain, perturbance, restlessness also belongs to the attributes of SY disease syndrome manifestation. 19

#### Tai Yin disease

TYI disease is evoked by "CD", mainly cold-dampness pathogenic, which penetrates the middle burner, or anxiety harming the spleen, or improper diet leading to the weakness of stomach and spleen and their function in controlling of receiving food and transporting, transforming food. Another reason is due to the decline of one's congenital endowment, the spleen Yang qi becomes insufficient and the person falls sick. Lastly, if the three Yang channel diseases remain untreated or aren't cured, the Yang of the middle burner get damaged, affecting the spleen and inducing TYI disease. Loss of appetite, abdominal fulness, and emesis, intermittent abdominal pain, an inclination for warmth and pressure for pain reduction, thirstless, pale greasy, white-coated tongue, and a floating superficial pulse are the clinical indications for TYI disease. <sup>20</sup>

#### Shao Yin disease

The location of SYI disease is heart and kidney. The ailment emerges as a result of Yang or Yin insufficiency in someone with a weak constitution, susceptible to exogenous pathogens, or as a development of exogenous pathogens directly attacking the SYI channel. After "CD" enters SYI, Yin, Yang, qi, and blood become all weak. The physiological interaction between water and fire glides into disharmony, the capability of the disease-resistant declines, and clinical symptoms are edema, aversion to cold, cold extremities, dry mouth, insomnia, loose stool, irritability, and thin pulse.<sup>21</sup>

SYI disease is divided into cold- and hot-transformation patterns. Heart and kidney Yang depletion, in addition, to Yin cold retention on the inside belongs to SYI cold pattern. Signs of cold extremities, sleeping posture with the body curled up, less consumption of liquids, emesis and loose stool, pale tongue with a white coating and deep pulse are indications of Yang asthenia and Yin prevalence. Heat damaging kidney Yin, the subsequent decline of body liquid, kidney Yin and heart Yang disharmony results in heat pattern, generating annoyance, insomnia, dry mouth, and throat, desire to drink, red tongue and a thready, rapid pulse.<sup>22</sup>

#### Jue Yin disease

JY disease, a complex state of illness, is the final stage of ailment conversion of the six channels.<sup>23</sup> JY disease occurs by direct invasion of "CD" or transmission of "CD" through the other channels. This malady is more serious than ailment of any other channels and goes along with heat in the upper region and cold in the lower part of the body and/or a mixup of cold and heat syndrome.<sup>24</sup> After JY receives "CD" the regulating function of Yin and Yang are out of balance and extreme cold or heat syndromes manifest. Heat in the upper region and cold in the lower part of the body syndrome is marked by constant thirst, hunger without a desire to eat. vomiting mud-worms after food intake, feeling of gi rising towards the heart, thoracic pain, heat sensation, and diarrhea. The combination of heat and cold and the disbalance of the regulating function of Yin and Yang are responsible for cold extremities. Constant thirst, the feeling of qi rising towards the heart, thoracic pain, and heat sensation is associated with heat syndromes. Hunger without a desire to eat, vomiting mud-worms after food intake, and severe diarrhea belong to cold syndromes.<sup>25</sup>

#### Conclusion

The six-stages pattern of cryopathology can be applied as a clinical diagnostic approach to determine the regimen method system. This structure can be used to analyze any syndrome and could be valuable for TCM practitioners in their daily work in understanding the course of the disease. The analysis and comprehension of the six-stages pattern of cryopathology would be a support in prescribing Chinese materia medica and the implementation of acupuncture.

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## Ethics approval

Not required.

#### Declaration of competing interest

Nil

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