

Foundations of TCM II

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Review

- 1. Holism Concept
- 2. Yin & Yang Theory
- 3. Five Elements Theory
- 4. Five-Zang Organs & Six- Fu Organs
- 5. Qi, Blood, Jing (Essence), Jin Ye

The Study of Human Body

- 1. Physiology: the way in which a living organism or bodily part functions
 - How does a normal body function?
- 2. Pathology: pathological features considered collectively; the typical behavior of a disease
 - What does an unhealthy body look like?
- 3. Pathophysiology: the disordered physiological processes associated with disease or injury
 - What causes the signs and symptoms of an unhealthy body?

Disease Defined

- a disorder of structure or function, especially one that produces specific signs or symptoms or that affects a specific location and is not simply a direct result of physical injury”
- “a disruption of the normal processes and functions within the body”
- “a response to a foreign entity or an internal change that results in negative reactions of the body”

Causes and Etiology

- Etiology: the cause, set of causes, or manner of causation of a disease or condition; the study of the concept of various pathogenic factors, their formation, nature, pathogenic characteristics, and the clinical manifestations of the disease caused by them
- Etiology: how causative factors arise, progress through, and affect the body
- Pathophysiology: how the body responds or changes in presence of a pathogen
- Causes of Disease: factors that change the equilibrium of the body and thus bring disease

Seeking the Cause of Disease

- Syndrome or Pattern Differentiation:
 - Characteristic of TCM
 - Studies the cause of a disease by understanding objective conditions that may become pathogenic factors
 - Derives the manifestations of the disease through analysis of symptoms and signs of disease to infer its cause

The Causative Factors

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- Internal causes:
 - Anger/ Joy/ Sadness/ Worry and pensiveness
 - Fear/ Shock
 - External causes:
 - Wind/Cold/Summer-Heat/Dampness/Dryness/Fire
 - Other causes of disease:
 - Weak constitution/ Over-exertion (or lack)
 - Mental overwork/Physical overwork
 - Excessive physical exercise
 - Excessive sexual activity
 - Diet/ Trauma/Parasites and poisons
 - Wrong treatment (or sequelae of disease)

External (Exogenous) Causes of Diseases

- Factors that invade the body and cause disease
 - Such factors arise from the environment (artificial and natural)
 - Su Wen (Simple Question) : 100 diseases originate from Wind, Cold, Summer-Heat, Dampness, Dryness and Fire
 - Chapter 25 of Simple Question: clearly states the close connection of a human being comes into being through the Qi of Heaven and Earth and its growth is governed by the 4 seasons.
- Divided into:
 - 6 Excesses or 6 Evils
 - Pestilential Qi - pandemic

Basic Concepts

- Six Qi:
 - Refers to the six normal climate changes that occur in nature
 - Wind, Cold, Summer-Heat, Dampness, Dryness, Heat (Fire)
- Six Excesses or Evils
 - Refers to the Six Qi that causes disease within the body
 - Pathogenic Wind, Cold, Summer-Heat, Dampness, Dryness, Heat (Fire)
- The Six Qi become the Six Evils when:
 - The 6 Qi changes sharply and abruptly, beyond the body's adaptive capability;
 - The body resistance is weak, cannot resist even a normal amount of climatic Qi



Characteristics Common to the Six Evils

- Exogenous
 - The Qi invades that body from the external
 - Enter the body via mouth, nose, or body surface
- Seasonal
 - Qi that invades is characteristic of the environment
 - Qi usually reflect that natural or artificial environment's climate
- Regional
 - Cause of disease usually related to the area one lives or works
- Combinable
 - Pathogenic factors can exist and invade singularly, or in combination
- Transformable
 - Nature of disease cause by the 6 Evils can transform into one another

Six Evils Vs. Pathogenic Microorganisms

- 6 Evils represent a pattern of signs and symptoms
- Various different microorganisms may produce the same signs and symptoms
- 6 Evils may also represent the body condition that is conducive to invasion by microorganisms
- Treatment is focus on changing the body's internal climate/condition such that the pathogenic microorganism is attenuated

Natural Vs. Artificial Climates

- Both can give rise to changes in the body
- Both can result in disease when abrupt in change or great in intensity
- Artificial climates give rise to more complex and faster changing patterns of disease
- Artificial climates include:
 - Air conditioning; Indoor heating; strong circulation fans; refrigerated storerooms; hot kitchens; manufacturing plants; usually dry or wet worksites

External and Internal Patterns Vs. External and Internal Causes of Disease

- Internal causes are always from emotions
- External causes do not stay on the exterior
 - Exterior syndrome is characterized by aversion to cold and aversion to wind
 - Exterior syndrome means the pathogen lies on the skin and muscle layer
 - Ascending order of severity: Aversion to Wind; Fear of Cold; Aversion to Cold; Shivers
- Exterior pathogens can migrate inwards, via the channels and vessels, to cause interior syndromes
 - Interior syndromes characterized by involvement of specific Zang-Fu
 - A pathogen that has migrated inwards is no longer considered an exterior syndrome; there is no longer aversion to cold or aversion to wind



Wind 風

- Wind tends to float
- Wind tends to move
- Wind tends to change
- Wind tends to be complicated by other pathogenic factors
- All exogenous pathogenic factors characteristic of lightness, rising, opening-dispersing, and migrating are called wind pathogen

Wind Tends to Float

- Yang nature, characterized by floating and dispersion because of lightness
- Usually attacks the upper part (the head and face) and skin first when it invades the body
- Mainly involves the surface of the body, the head and the face with the manifestations of headache, running nose, sweating and aversion to cold, etc

Wind Tends to Move

- Disease caused by Wind tends to move or cause movement
 - Shifting locations (such as migratory pain of limbs in Wind Bi-syndrome)
 - Tremors and movement (such as convulsion, spasms of limbs, twitching, etc)
 - Dizziness or vertigo (such as subjective feeling of shaking or faintness or like sitting in a boat or car)
- Dizziness is usually caused by dysfunction of the viscera complicated by Internal Liver Wind
- Exogenous pathogenic Wind is often the factor that induces endogenous Wind

Wind Tends to Change

- Characterized by sudden onset and abrupt changes
- Immediate transmission and change as well as quick resolution also part of Wind
 - For example, rubella is marked by quick fluctuation of cutaneous pruritus without a fixed location

Wind Concomitant With Other Pathogens

- Often the vehicle for with one of the other Six Excesses invade the body
 - Wind-Cold; Wind-Heat; Wind-Dry; Wind-Damp
- Presence of Wind also facilitates quick internal transmission of disease

Nature and Characteristics of External Wind Syndromes

- **Disperses Qi upward and outward**
 - Yang energy wants to rise and expand
 - Illnesses manifest in upper and outer parts of the body in early stage: head, sense organs and skin
 - Rashes Common: itchy, come and go quickly, spread quickly
 - Sweating common: causes opening of pores (Qi and fluids lost)
- **Rapid onset and rapid changes**
 - Acute illnesses with rapid progression such as fever, infectious diseases
- **Creates abnormal or sudden movement**
 - spasms, convulsions, twitches
- **Creates abnormal positions**
 - Stroke
 - Stiff neck with flu
 - Opisthotonos
- **Most common in spring**

Cold Pathogens

- All exogenous pathogenic factors characteristic of Cold, coagulation, and contraction are called Cold pathogens
- Cold is prevalent in winter so there are more diseases caused by Cold in this season
- Diseases caused by Cold can also be seen in other seasons

Nature and Characteristics of Cold Pathogen

- Cold pertains to Yin and is apt to attack Yang Qi
- Cold having property of coagulation and stagnation
- Cold having property of contraction

Cold 寒

- Cold tends to impair Yang
- Cold tends to coagulate
- Cold tends to contract

Cold Tends to Impair Yang

- Pertains to Yin and tends to impair Yang
- When Cold attacks the surface of the body, it will impair Yang in the superficialities
- When Cold attacks the internal of the body, it will impair the visceral Yang
- If Yang-qi is impaired and cannot warm and transform Qi, it will lead to cold syndrome due to functional decline

Cold Tends to Impair Yang

- If cold impairs the superficies, the Wei Qi will be stagnated, leading to aversion to cold
- If cold directly invades the Spleen and Stomach, the Spleen Yang will be impaired, leading to cold pain in the stomach and abdomen, vomiting and diarrhea
- If Cold directly attacks ShaoYin, it will impair Heart Yang and the Kidney Yang, leading to aversion to cold, lying with the knees drawn up, dispiritedness, cold hands and feet, diarrhea with undigested food, profuse and clear urine, thin and indistinct pulse

Cold Tends to Congeal

- Qi, Blood, and body fluids are warmed and propelled by Yang Qi, allowing for continuous circulation
- If pathogenic Cold obstructs Yang Qi, then Qi, Blood, and body fluids cannot flow freely and will coagulate in the vessels, bringing pain
- If Cold attacks the viscera, the visceral Qi and Blood will be stagnated, causing abdominal pain
- If Cold attacks the muscles and joints, Qi and Blood in the muscles and joints will coagulate, resulting in pain in the muscles and joints

Cold Tend to Contract

- Pertains to Yin and tends to restrain the activity of Qi
- Leads to contraction of muscles, tendons, and vessels
- If Cold attacks the superficies, the muscular interstices will be stagnated, the muscles will be contracted and the Wei Qi cannot disperse, leading to aversion to cold and papules
- If Cold invades the limbs and joints, the tendons and vessels will become contracted, bringing on somatic pain, headache, and spasm of the limbs

Summer-Heat Pathogen

- From summer solstice to autumn begins, the exogenous pathogenic factors characteristic of scorching-hot, ascending and dispersion, mixed with Dampness are called pathogenic Summer-heat
- Summer-heat is the dominant Qi in summer and transformed from Fire-heat Qi
- Only seen in summer, which is characterized by an apparent seasonality
- Summer-heat is a pure exogenous evil and attacks the body from the exterior

Characteristic and Nature of Summer-Heat Pathogen

- Summer-heat pertains to Yang and is characteristic of scorching-heat
- Summer-heat being ascending and dispersive, tends to impair fluids and exhaust Qi
- Summer-heat likely to be mixed with Dampness

Summer-Heat 暑

- Summer-heat is hot
- Summer-heat tends to disperse
- Summer-heat is often complicated by Dampness

Summer-Heat is Hot

- Summer-heat pertains to Yang and is hot in nature
- Disease caused by Summer-heat is usually marked by Yang symptoms such as high fever, dysphoria, reddish complexion, thirst with preference for cold drink, and full and large pulse, etc.

Summer-Heat tends to Disperse

- Pertains to Yang, and tends to disperse and elevate
- Disturbs the mind when it elevates, leading to dysphoria and dizziness, or even sudden coma and unconsciousness in severe cases
- Induces sweating and consumes body fluid when it disperses, leading to thirst with preference for drinking water, and reddish and scanty urine
- If there is profuse sweating, Qi will be damaged, eventually bringing on shortness of breath and lassitude due to Qi deficiency

Summer-Heat is often Complicated by Dampness

- In hot season, Heat fumigates Dampness
- Dampness is exuberant in summer and often mixes up with Heat to attack people
- Disease caused by Summer-heat-dampness is often, apart from fever and extreme thirst, characterized by lassitude of the four limbs, chest oppression, vomiting, and unsmooth loose stool, etc.

Dampness Pathogen

- All exogenous pathogenic factors characteristic of heavy turbidity, stickiness and stagnation, and downward are called Dampness pathogen
- Dampness is the dominant Qi in late-summer or in the intersection of summer and autumn
- It is the dampest in the year because there is steaming Damp-heat and vaporizing water
- Diseases caused by Dampness can also result from swimming and drenching, living in wet and damp places, and working in the water

Characteristic and Nature of Dampness Pathogen

- Dampness is a Yin pathogen and apt to hamper Qi movement and damage Yang Qi
- Characteristic of Dampness being descending and apt to attack Yin locations

Dampness is Heavy and Turbid

- It is heavy, so pertains to Yin
- Dampness is similar to water and it often mixes up with water, making it turbid
- Dampness will lead to symptoms such as heaviness of the body or the four limbs, heaviness of the head like being bound, or heaviness and lassitude of the whole body
- Dampness invasion of the body often brings on the symptoms of turbid secretions and excretions, dirty complexion, excessive secretion of gum in the eyes, loose stool, mucous and bloody dysentery, turbid urine, leukorrhea, and oozing eczema

Dampness Tend to Block Qi

- Moves slowly because it is heavy
- Tends to retain in the viscera and meridians, inhibits the flow of Qi, and disturbs the activity of Qi
- Frequently leading to chest oppression and fullness, scanty and unsmooth urination, and inhibited defecation
- Dampness pertains to Yin and also tends to impair Yang Qi

Dampness Tends to Block Qi

- Prolonged blockage of Qi by dampness will prevent Yang Qi from flowing, often causing exuberance of Dampness and decline of Yang
- Pertains to earth and is related to the Spleen
- Tends to impair the Spleen, bringing on encumbrance of the Spleen by Dampness and stagnation of Qi in the Middle Jiao
- If Dampness impairs Yang, it will inactivate Spleen Yang and further accumulate water and Dampness, leading to diarrhea, scanty urine, edema, and ascites

Dampness is Sticky and Stagnant

- Affects the body in two ways:
- Disease caused by dampness is not brisk, and tends to linger
 - For example, the secretions and excretions are too sticky to be excreted
- Disease caused by Dampness is obstinate and recurring with long duration
 - Damp Bi syndrome (Damp blockage syndrome), eczema, and Damp-warm syndrome

Dampness Tends to Descend and apt to Attack Yin Locations

- Dampness is similar to water and characteristic of descending
- It is apt to attack the lower part of the body
- Edema caused by fluid-dampness is usually seen in the legs
- Dampness pouring downwards can cause vaginal discharge, turbid urine, diarrhea, dysentery and cankerous legs

Dryness 燥

- All exogenous pathogenic factors characteristic of Dryness and astringency are called Dryness pathogen
- Dryness, the dominant Qi in autumn
- Marked by depurating, descending, astringency, and dryness
- Can be seen in four seasons of the year

Characteristic and Nature of Dryness

- Characteristic of Dryness is being dry and pucker, and apt to impair fluids
- Dryness likely to injure Lung, manifesting in the nose, mouth, and skin

Dryness

- Dry and pucker and apt to impair fluids
- Dryness likely to injure Lung
- When invading the body, it is most apt to impair fluids
- Results in various xerotica (abnormal dryness) symptoms such as dry mouth, nose and throat, lusterless hair, dry stools, scanty urine, etc.

Dryness Likely to Injure Lung

- As a tender organ, the Lung governs Qi and respiration
- It opens into the nose and is externally connected with skin and hair
- The Lungs are fond of clarity and moist and averse to Dryness
- Dryness pathogen frequently invades the human body through the mouth and nose and attacks the Lungs
- Causes dry cough, scanty or sticky phlegm, gasping pain in the chest
- When it damages the Lung vessels, there is bloody sputum

Dryness Tends to Injure Lungs

- The Lung and Large Intestine are in exterior and interior pair
- Dryness causes failure of Lung Qi to disperse and descend
- Exhaustion of body fluids will result in lack of moistening of the Large Intestine and its dysfunction to transport, manifested as dry stools

Fire Pathogen

- All exogenous pathogenic factors characteristic of torridity and flaming up are called Fire (Heat) pathogen
- Fire (Heat) blooms in summer but is not so seasonal as summer-heat
- It is not affected by seasons and climates
- Fire diseases are seen in four seasons

Fire 火

- Heat (Fire) tends to flame up
- Heat (Fire) tends to consume (exhaust) Qi and impair body fluid (to consume body fluids)
- Heat (Fire) tends to cause convulsion and bleeding
- Heat (Fire) tends to cause sores and abscesses

Characteristic and Nature of Heat (Fire)

- Fire (Heat) is a yang pathogen which characteristic being flaring up
- Fire (Heat) being likely to disturb Heart Shen
- Fire (Heat) being likely to cause sores and abscesses

Heat (Fire) Tends to Flame Up

- Disease caused by the pathogenic Heat (Fire) is marked by high fever, aversion to heat, extreme thirst, sweating, and full pulse
- When pathogenic Heat (Fire) attacks the body, it may disturb the mind, leading to dysphoria, insomnia, mania, coma, and delirium, etc.
- Pathogenic Heat is responsible for irritability and rapid movement
- Disease caused by fire characterized by acute onset and rapid transmission

Heat (Fire) Tends to Consume Qi and Impair Body Fluids

- Heat (Fire) pertains to Yang and tends to consume Yin Fluids
- Superabundant Heat will drive body fluid out of the body in the form of sweat
- Disease caused by the pathogenic Heat often accompanied by thirst with preference for drinking water, dry throat and tongue, dark and scanty urine, and retention of dry feces due to consumption and impairment of body fluid

Heat (Fire) Tends to Cause Convulsion and Bleeding

- Fire-heat invades the body, burns and scorches liver meridians, exhausts fluids, and causes the loss of nourishment of tendons and muscles
- Results in the syndrome of Liver Wind stirring up internally
- So it is also called "Extreme Heat causing Wind", manifesting as high fever, coma, spasm of limbs, upward squint of the eyes, opisthotonos etc.

Heat (Fire) Tends to Cause Convulsion and Bleeding

- Fire enters blood vessels, it accelerates blood flow and burns the vessels
- Causing abnormal flow of blood, manifested as various bleeding, such as hemoptysis, epistaxis, hematochezia and hematuria, ecchymosis, excessive menstruation, metrorrhagia, metrostaxis, etc.

Heat (Fire) Tends to Cause Sores and Abscesses

- Fire invades blood level, stagnates in local areas, causing erosion of muscles and pus, which are termed as sores, ulcers or abscesses
- Clinically, it marked by are redness, swollen, burning, and painful sensation in the local areas

Pestilential Qi 戾氣

- Concept:
- It is an exogenous pathogenic factor which is strongly infectious, and it can cause diseases through air, food, bites by insects and animals, dermal contact, etc.
- Pathogenic characteristics of Pestilential Qi:
 - Strong infectious and epidemic
 - Acute onset and severe condition
 - Diseases vary with Pestilential Qi but symptoms are similar

Pestilential Qi

- Pestilence is a kind of strong infectious pathogenic factor, quite similar to the pathogenic Heat (Fire)
- More serious than the pathogenic Heat in toxicity
- Diseases caused by pestilence are marked by acute onset, severe pathological condition, similar symptoms, strong infection, and easiness to spread

Pestilential Qi

- Historical records show that diseases caused by pestilence often spread the disease far and wide with high mortality
- The commonly encountered diseases caused by pestilence are facial erysipelas, mumps, pestilent dysentery, diphtheria, scarlet fever, smallpox, cholera, and plague