

Oriental Medical Physiology

Jueyin (Liver and Pericardium) Physiology

Six Levels of Physiology In Chinese Medicine

- Taiyang (UB/SI) – Opens outward (to outside)
- Shaoyang (GB/SJ) – Pivot
- Yangming (LI/ST) – Closes inward
- Taiyin – (LU/SP) – Opens outward (to inside)
- Shaoyin – (HT/KD) – Pivot
- Jueyin – (LV/PC) – Closes inward

Jueyin Introduction

- Jueyin rests at the inside of the inside of the channels system - It closes inward
 - Jueyin is sometimes translated as terminal yin (reflecting its position at the end or apex of yin)
 - Sometimes translated as reverting yin (reflecting that as yin reaches its apex, it reverts to yang)
 - Jueyin implies a retreat from the exterior towards rest and rejuvenation - it is a closing inward, but within itself holds the seed for a reversion towards yang
 - This level, including the Liver and Pericardium, is one of retreat, storage, and rejuvenation

Jueyin Introduction

- Recall that wind is associated with the Liver - This movement and chaos of wind is opposing to the restfulness of jueyin
 - Wind is associated with Spring - there are strong winds in the Spring in the region that the Inner Classic emerged. As the medicine evolved, the concept of Wind evolved.
 - Sudden changes at any time were associated with wind
 - Sudden changes in the body's inner landscape were also associated with wind
 - Wind has a tendency to move and frequently change
 - Patients who become ill suddenly or whose illness change quickly are said to be afflicted with wind-type pathogens
 - Symptoms associated with wind include twitching and muscle spasms, skin rashes which come and go, nearly any condition that involves a sudden onset or tendency to change
 - Jueyin should be considered when treating these patients

Jueyin Introduction

- Therefore a healthy qi transformation by the liver and pericardium help create an environment in which the destructive powers of wind can not arise
 - Both the disease-bearing winds of the external environment and the moving diseases of internal wind are calmed by the fullness of Jueyin blood
 - When healthy blood fills the vessels, it prevents the invasion of pathogenic wind
 - Wind fills the vessels in the absence or insufficiency of blood
 - This could be a general insufficiency of blood or a failure of blood to be properly assigned to an area by the liver

Jueyin Introduction

- Nourishment defines the nature of Taiyin, regulation defines the nature of Shaoyin; the Jueyin level is specifically associated with the blood
 - Many classical texts assert that 'blood is the mother of qi, and qi is the commander of blood'
 - Jueyin plays an important role in this qi-blood relationship
 - Pathways of qi are maintained by the liver (dredging and draining)
 - Qi depends on the fullness of Jueyin blood for nourishment
 - When the body sleeps, blood returns to Jueyin, where it settles and clarifies
 - Blood is stored and clarified by the liver while the qi of emotional excess is held, calmed, and released by the pericardium

The Liver holds the office of general and is the issuer of strategies and planning

- Idea of general might seem at odds with the quiet refuge of jueyin
- General commands war from the relative calm of strategic headquarters
- In health, the liver is like a general, both peaceful and alert

Functions of the Liver

- Dredges, drains, and regulates (ensures a smooth flow of qi)
- Stores blood and nourishes the sinews
- Stores the ethereal soul (hun)
- Opens to the eyes, controls tears

Functions of the Liver

Dredges, Drains, and Regulates (Ensures a Smooth Flow of Qi)

- Dredging is associated with the dredging of ditches and describes the role of the liver in maintaining the flow of qi, especially among the internal organs.
- Dredging function also facilitates the draining of accumulated qi. It loosens and opens the pathways.
- This means that the liver ensures a smooth flow of qi

Functions of the Liver

Dredges, Drains, and Regulates (Ensures a Smooth Flow of Qi)

- This smooth flow of Liver qi affects many things
 - Emotional state
 - Ensures a balanced emotional life
 - Digestion
 - Smooth flow of liver qi assists the functions of the Stomach and Spleen
 - Allows for the descent of Stomach qi and ascension of Spleen qi
 - If Liver qi becomes stagnate or 'horizontally rebels' it prevents the normal movement of these organs
 - Stomach qi affected - results in belching, acid reflux, nausea, vomiting
 - Spleen qi affected - results in diarrhea (especially alternating constipation and diarrhea)
 - Secretion of bile
 - Smooth flow of Liver qi affects flow of bile
 - If liver qi is stagnant, bile may be obstructed leading to a bitter taste in the mouth and other issues such as jaundice, belching, difficulty digesting fats

Functions of the Liver

Stores blood and nourishes the sinews

- The Liver stores and regulates the volume of the blood in the body
- This includes preventing bleeding, regulating volume of blood, and equal distribution of blood in the body.
- There are three main aspects of the Liver's blood storage and regulation:
 - Liver regulates the volume of blood in the body
 - Liver regulates menstruation
 - Liver blood moistens the eyes and sinews

Functions of the Liver

Stores Blood and Nourishes the Sinews

- Liver regulates the volume of blood in the body
 - During activity, the blood flows to the muscles and sinews - controlled by the Liver. In times of rest, the blood returns to the liver for nourishment.
 - This also indirectly relates to the body's resistance to external pathogenic invasion, especially wind. Recall that wind is associated with the Liver - This movement and chaos of wind is opposing to the restfulness of jueyin
 - Wind is associated with Spring - there are strong winds in the Spring in the region that the Inner Classic emerged. As the medicine evolved, the concept of Wind evolved
 - Sudden changes at any time were associated with wind
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Functions of the Liver

Stores Blood and Nourishes the Sinews

- Liver regulates menstruation
 - When the liver fails to control the volume of blood, this can manifest in gynecological disorders
 - If the blood of the liver is deficient, there will be scanty periods or amenorrhea
 - If the blood of the liver is in excess or is hot, there will be heavy periods
 - If the blood of the liver is stagnant, the periods will be painful

Functions of the Liver

Stores Blood and Nourishes the Sinews

- Liver blood moistens the eyes and sinews
 - When liver blood is insufficient or if it fails to distribute, it is unable to nourish the sinews, nails and eyes.
 - If the blood does not nourish, there will be tense sinews, numbness in the 4 limbs, rigidity in the joints, spasms, and cramps.
 - Blood deficiency more associated with cramps, numbness
 - Blood stasis can result from a failure of the livers dredging and draining function
 - Blood stasis lead to stiffness, rigidity and pain
 - If there is internal wind generated, tremors and convulsion are seen
 - If the blood does not nourish, there will be dry and rough eyes.
 - Tears pertain to the liver, which moisten the eyes and ensure normal function
 - Liver controls amount of tears secreted (especially tears related to lubrication and removal of foreign objects - not emotional tears)
 - When liver yin or blood are insufficient, the eyes will be dry and rough.
 - If the blood does not nourish, there dry and brittle nails.

Functions of the Liver

Stores the ethereal soul (Hun)

- When liver blood is sufficient, Hun is anchored
- When insufficient, not anchored and it floats, giving rise to nightmares, insomnia

Functions of the Liver

Opens to the eyes, controls tears

- box 7.6, pg 123

The center of the chest (pericardium) holds the office of governmental envoy; happiness issues from it

- Pericardium is the envoy of the heart (official or secretary)
 - Recall that the lung was likened to the prime minister. The prime minister has distinct duties from the emperor (heart).
 - The envoy is entirely dependent of the emperor (functions of these two organs are thus more difficult to separate)
 - Often there is a reference to five yin organs and six yang organs. This ignores the fact that there is six yin organs when the pericardium is counted. Some of the most ancient information actually includes the pericardium as the envoy or stand in for the heart. Clinically heart pathology can show changes in both pericardium and heart channels and both channels are often helpful in treatment .
- Like an envoy, the function of the pericardium is to facilitate communication
- Must also defend the palace from attack and protecting the emperor (heart protector)
- Pericardium cushions the effects of assault from the outside and disseminates the commands and moods inside from the heart

Functions of the Pericardium

- Protects the Heart
 - Important when protecting the heart from external heat pathogens
 - Also important for heat in the Heart
 - Pericardium provides blood and nourishment to the heart while absorbing and releasing generated heat from activity
 - Also, emotional excess in the heart is absorbed and released by the pericardium