

The Relationship between the Kidney and the Heart in Chinese Medicine

by Leon Hammer

Introduction

Stated at the beginning of this paper and once again at the end, the practical significance of harmony between the Heart and the Kidney is the relationship of the mind-spirit [controlled by the Heart] and the brain-marrow [created and sustained by Kidney marrow-essence]. Together they determine mental stability and function.

Using a digital metaphor, the Heart is the software and Kidney Essence the hardware. The Triple Burner mediates this relationship and should always be considered in management.

The Water is the ground substance of our existence, the foundation-root of and resource for all life. *'The Fire is endless ongoing creation on earth, the God in man. Divine Love resides in Water Qi [Yin-Yang] as a potential that is realized and expressed by the Heart-Word, the communicator that reaches out to the world.*

Jeffrey Yuen says the Kidney (self) feeds the Heart (purpose). If the Kidney [marrow-blood] is insufficient to nourish Heart Blood, the question is raised, 'is there a sense of purpose in life'.

In the process of 'becoming' the Water, the Kidneys predominate from conception through delivery, and therein most profoundly affects the Heart-Fire so that at birth these two are the substrate for all that follows throughout life that we call constitution. Here is the beginning of the Kidney-Heart association that we refer to as Kidney-Heart Harmony.

Kidney Essence ['nervous system'] deficiency in-utero directly inhibits the normal development of Heart yin and yang. Secondarily, post-partum Kidney Essence's deficient control of the 'marrow' causes a decrease in blood production for the Heart. Thus the deficient Kidney Essence 'nervous system' that controls the brain (marrow) destabilizes the Heart (that controls the mind), and this loss of Heart stability in turn causes the 'nervous system' to become unbalanced. Mood and qi are constantly changing, one moment up and the next moment down, ultimately compromising all physiology and function. Water is the foundation represented by the Lower Burner that grounds the Heart. If the spirit-heaven [Shen-Heart] and the material-ground

[Kidneys] are in harmony then you can have your feet on the ground and head in the clouds.

The *Fire of Mingmen* is the Yuan, resides in the "uterus" and issues forth the Kidney duality associated primarily with the Du Mai, Ren Mai, especially the Chong Mai. The latter is associated with Kidney points 21-27, effective with emotional-spiritual issues and closely related to the Pericardium-Heart. [Exit-Entry Points Kid 22- P1, 2]. Kidney Qi-Yang sends the 'fire of mingmen' to the Heart to support Heart Qi-Yang and it's function of moving the circulation.

Blood in Chinese medicine is associated with receptivity and the softer emotions and Divine love is a function of Kidney Yin, a potential that we have already mentioned is realized and expressed by the Heart, the great communicator that houses awareness

Disharmony

Conceptually

Kidney Yin controls Heart Fire-Heat [Mentally Driven]. If the water of the Kidney cannot control the Fire of the Heart, the mind-spirit will become restless. The symptoms of this disharmony, or spirit disturbance, are palpitations, insomnia, irritability, fatigue, depression, being easily startled, and anxiety.

If the Yin [Water-Kidney] is deficient the Yang [Fire-Heart] 'flies away' we have the 'separation of yin and yang and the 'Qi Wild' condition. This manifests as chaos- insanity or auto-immune disease. If the Fire of the Heart cannot warm the water [Yin Essence of the Kidney], it is unable to rise and nourish the brain [marrow].

Origins

1. In-Utero

The Kidney-Heart disharmony begins in utero when the essence [Jing] and the spirit-soul [Shen] are separated and their connection is damaged during conception, pregnancy and delivery due to shock from a toxic environment [drugs, toxemia, breech etc.]

2. Shock

Shock to the Heart drains Heart Yin [See Sheng Mai San]. Kidney Yin sends fluid and blood to restore Heart Yin and Blood drained by shock, Most Heart conditions, qi agitation, qi and blood deficiency and stagnation, phlegm misting the orifices, seem to begin with Heart shock. Shock in-utero and at birth have the most profound lasting effects.

The least residue of the shock will be Heart Qi Agitation. If the Heart qi is deficient, there will be variations in the rate, [Circulation out of Control] in addition to its being Rapid.

The most serious consequence of this draining of the Heart Yin is the 'Separation of Yin and Yang' of the Heart and the loss of control of the Yin over the Yang. ["Shock scatters qi"ⁱⁱ]. Yang represents function and when function is out of control chaos and degrees of emotional instability ensue.

3. Other Etiologies of Disharmony

Disharmony or pathology in either the Kidney or the Heart can initiate the separation. Poor nutrition [starvation] will affect drain Kidney Essence. Chronic 'fear of the unknown' is the greatest challenge to Kidney Qi and overthinking to Kidney Yin. Loss of a loved one, trauma, violence and sexual abuse are shocks to the Heart and illness such as rheumatic fever and Heart disease drain Heart Qi. Chronic worry and obsession drain Heart yin and blood interfering with mentation.

Sudden sadness and depression [lack of joy] will cause Heart Qi stagnation, a dampening of the circulation of blood and energy. Mania and anger, when these emotions have no outlet, will cause a sudden filling of the Heart [Trapped Qi] that will inhibit circulation of Heart blood.

The main pathway between the Kidney and the Heart is through the Triple Burner. Another pathway between the Kidney and the Heart can occur through the divergent Bladder channel. The interdependence of all phases influencing the mind and the brain is illustrated by repressed Liver qi creating heat that goes to a vulnerable Heart with palpitations as rest and Heart dysfunction. Disturbance in the Stomach divergent channel going through the Heart can lead to intermittent emotional disturbance and psychosis.ⁱⁱⁱ [DRRBF: Chapter 14]. The Gallbladder divergent channel is associated with timidity and being easily startled.

Clinical

General

The two systems that seem to bear the brunt of both constitutional deficits and self-abuse are the Heart and the Kidneys and are the root diagnostic issues we find most often in the thousands of patients we have examined over the years.

The cardiovascular system is the one that shows signs of depletion of qi, yin, yang and blood at an earlier age, and far exceeding that of any other system, including the Kidneys. The ubiquity of Heart disharmonies on almost all pulse records is a testimony to the important role that the Heart plays in the day-to day wear and tear of the organism throughout its lifetime.

Because the Kidneys are associated with storing the essence, upon which all other systems draw when under stress, we have come to expect that they would be the first organ to show signs of depletion. Because of poor diet and dietary habits, one would expect the Spleen to be most depleted most quickly. However, the Kidneys on the other hand, by storing the essence from constitution and life, can sustain itself as well as other organs, especially the Spleen for relatively longer if it was adequate at birth.

Common sense informs us that every cell in our body depends upon the efficient transportation of the products of the Spleen [nutrients], oxygen [Lungs], fluids [Kidneys], Qi-energy [Liver] by the vascular system. A large number of diverse chronic disorders resistant to treatment, are entirely or partially due to deficits in Heart (cardiovascular) function, even sinusitis.

The lofty status of the Heart recognized by the ancients as the 'emperor' is clinically well earned. The empire is 'run' by the Triple Burner and one of its principal functions is to connect the Heart and the Kidneys. The Heart depends upon the integrity of Kidney Essence on which the Heart depends to maintain function and stability.

Pathology- Mental Illness

If either the 'nervous system' [Kidney Essence], or Heart qi and blood are deficient, stress can easily induce psychological rather than physical problems. Vulnerability to mental illness is rooted in Kidney Essence deficiency [nervous system 'weak' or 'tense'] and the reality of it is expressed through the Heart.

Contrary to the System of Correspondences, emotions affect first the most vulnerable organ, so that before anger will affect the Liver, it will adversely affect the Lungs if that organ is the most deficient. Whether the

effect will be physical or emotional depends again on the integrity of the Kidney-Heart polarity.

Phlegm Misting the Orifices

i. Introduction

Many mental conditions, especially the most serious, are associated with Phlegm Heat or Cold Misting [obstructing] the Orifices. [What are 'orifices' is a separate important issue not relevant to this discussion].

ii. Pulse [CCPD] & Herbs

With Phlegm Misting the Orifices the left distal position on the radial pulse is often Slippery [damp] with Robust Pounding [heat] as is sometimes the Mitral Valve position, an ideal combination for this condition. Certainly the herbal formulas for clearing phlegm from the orifices are amazingly successful in resolving mental-emotional conditions.^{iv}

iii. Phlegm-what is it?

Phlegm we know is stagnant water usually coagulated by heat or cold. We know that each organ normally possesses fluid [yin] and heat [yang]. We also know that normally fluid comes from Kidney Yin to resupply the yin of each organ and we know that Yin is cold. We know that Kidney Yang supports the Yang of each organ and that it is warm. And Fire characterizes the Heart and its Yang is supported by Kidney Yang.

iv. Sources of Excess Heat and Cold from Inside

1). Phlegm Heat

The pathogenesis of excess heat from inside an organ begins with stagnation that has many sources. In the Heart this can begin with shock. Stagnation is anathema to the organism that requires a continuous free flow of qi and blood. Metabolic heat is brought to the Heart to move the stagnation. If it succeeds all is well. If it fails, it will keep trying and gradually the metabolic accumulates and becomes excess heat. Excess heat is likewise experienced as toxic to be expelled. If this fails the body brings fluid to balance heat and over time the heat and the fluid combine to create phlegm-heat [associated with active mental activity-mania].

2). Phlegm Cold

a. Yang deficiency

The 'cold' to which we refer here is one that is coincident with yang deficiency, in this case, Heart Qi-Yang deficiency. Since qi moves fluids, [yin and blood], deficient qi leads to an accumulation of fluid referred to as stagnant. Hence we have excess due to deficiency. The pulse has demonstrated that more often than not the Heart Yang deficiency is coincident with Kidney Yang deficiency.

From here we repeat the scenario in which the organism brings heat to move the qi but there is not

enough heat to make a difference if the Heart is Yang deficient. The phlegm develops from ongoing stagnation of fluid that in the absence movement coagulates thus creating a Phlegm-Cold condition [associated with depression].

Stagnation

Heart Stagnant Qi also known as 'Heart Closed' is found with a Flat quality at the left distal position in which the patient reports feeling 'cold-hearted' or 'heart closed' in which insufficient qi can enter the Heart.

Another form of a 'heart-closed' condition ['heart small'] is stagnant Heart blood identified also by a Flat quality at the left distal position possibly with the Choppy quality. It is associated with Heart shock and with prolonged labor with the individual's head outside of the mother and the umbilical cord around the neck. Eventually, this quality is often found with symptoms of unexplained fear, tension, shortness of breath (especially on inhalation), and chest pain.

vi. Sources of Heat and Cold From outside

a). Vulnerability

The principle from which we begin is that the organ that creates or receives excesses is an organ that is already vulnerable.^v Our discussion rests on the premise that for some reason the Heart has received 'insults' that have weakened it be it 'in utero' at birth and/or from life.

b). Pathogenesis

1). Heat

External toxic excess heat in the Heart primarily comes from excess heat in the Liver that the Liver can no longer contain, or the Stomach. If the Heart is vulnerable, the heat will go there. [Clinically it is associated with palpitations at rest.]

2). Cold

No explanation of external cold affecting the Heart exists of which I am aware except that mentioned by Wiseman-Ellis, without elaboration^{vi}.

c. Pathology Continued

i. Neurological

The spectrum of disorders that are in the range of 'organic' associated with some neurological defect all belong in the Kidney-Essence deficient ['nervous system weak'] domain. However, their expression may be very much associated with the Heart qi-yang end of the spectrum.

A young child is diagnosed on the autism spectrum. Typical of the autistic child he has social interaction problems, echolalia, sensory idiosyncrasies and other behavioral and language difficulties. These I identify as 'organic' or signs of serious Kidney Essence deficiency ['nervous system weak']. However, these

symptoms are all potential until the Heart-mind makes them manifest in terms of expression and action.

Furthermore, apart from what is listed as signs and symptoms of autism this young man experiences extreme overwhelming anxiety driving in a car fearing an accident. This is a great stress on a family that enjoys travelling to relatives and friends.

Again, we have the vulnerable 'nervous system' but the expression is through an extraordinary Heart qi agitation possibly also Phlegm Misting the Orifices and given the panic, especially Mitral Valve Prolapse. All the latter are Heart-Mind conditions.

We see the Kidney-Heart axis as a way of understanding and as a way of intervening, since while building Kidney Essence is slower, addressing Heart Qi agitation, Phlegm Misting the Orifices and Mitral Valve Prolapse is well within the purview of Chinese Medical interventions. While this young man may not lead a 'normal life', we can assuage some of his suffering.

ii. Neurosis-Psychosis

Apart from the emotional conditions associated with 'Phlegm Misting the Orifices' discussed above, there are a wide range of emotional disorders that are a function of the Kidney-Heart polarity classified as neurosis and psychosis.

Heart Qi Agitation is a state of instability of Heart qi that makes the 'spirit [shen] restless. The mind is not at peace and the propensity to worry increases. This is further exacerbated when the qi is further out of control with a 'rate that changes at rest' and the person's mind and life is on a 'roller coaster'-the 'grasshopper mind' in which the mind changes daily on major and minor life issues. Carried further into greater arrhythmias the mental chaos increases towards psychosis.

With Heart yin deficiency we get obsessive thinking and with Heart blood deficiency we problems with mentation, memory, attention and concentration.

With each of these conditions the Kidneys are involved. With agitation and rhythm disorders there is the grounding aspect of Kidney Essence. With blood deficiency there is deficiency of 'marrow' [Kidney Essence] that produces blood supplied to the Heart. With the obsessive aspects of Heart Yin deficiency, Kidney Yin is an important source of support. With Heart Qi stagnation [envy, jealousy, 'heartlessness'] there is Kidney Qi-Yang deficiency unable to overcome stagnation, and with Heart Blood stagnation [fear] there is Kidney Qi deficiency unable to supply the faith, trust and courage to face the 'unknown'. And again, the integrity of Kidney Essence determines if stress will become a mental-emotional or physical problem.

iii. Stress

As a general rule, emotion not appropriate for expression associated with ongoing stress, is contained by the Liver [thus qi stagnation]. Lives, jobs and relationships are saved by the Liver's ability to 'contain'. In our time, when the Liver is so compromised by drugs and environmental toxicity this containment is less effective and increasing amounts of calming mind altering substances are required with again a further diminishment of Liver function, A vicious cycle.^{vii} Thus more and more the Kidney-Heart axis deals with daily stress as well as shock.

Even if the Heart qi is strong, stress will produce agitation as an adaptive response by alerting the mind to action. Worry, Freud said was a rehearsal for real danger. However, in its extreme form, agitation becomes anxiety, panic, and neurosis. Panic and phobias are also associated with Mitral Valve Prolapse that is evidenced on the pulse at the Mitral Valve position with the Slippery quality.

Mildly deficient Heart qi will be expressed in mild and transient depressions. If the condition is more tenuous and the deficiency more severe, mild psychotic states may appear, especially with the accumulation of phlegm in the Heart. With more severe psychotic states, the deficiency of Kidney Essence, especially Kidney Yang-Essence as well as Heart qi and blood, and phlegm misting the orifices, is implicated.

One should not be misled by specific emotional states such as anger, depression, or mania into treating these states without first or simultaneously addressing the larger issue of the Kidney Essence deficiency ['nervous system weak'] and Heart qi instability, the Kidney-Heart Disharmony.

d. Triple Burner

i. General

The physiological and pathological mechanisms described above between the Heart and the Kidneys are mediated by the Triple Burner. The Triple Burner is responsible for the formation and maintenance of the communication between the Heart and the Kidneys.

The Triple Burner controls both water [yin] metabolism, especially through the Internal duct of the Triple Burner, and the thermostat, the regulation of heat and cold [yang] through Kidney Yang [thyroid function]. Furthermore, it replenishes Kidney Yang from the impure qi in the Internal Duct, attempts to discharge or retain excess heat or fluid wherever it is found. The acupuncture points Yemen (SJ 2) [fluid] and Zhongzhu (SJ 3) [digestion-Internal Duct] control these functions.]

Harmonious balance in every physiological sense, between and within each organ and burner, between all functions including human relationships is under the aegis of the Triple Burner. As I have said before, while the Heart is the Emperor, the Triple Burner 'runs' the Empire. We refer to this as homeostasis.

The question is how does the keeper of harmony and balance itself become imbalanced? Obviously ubiquitous in function throughout the organism and thereby endlessly drained, over time we would expect a decline in function. However, this is topic for another discussion.

ii. Bipolar Disease

According to Dr. Shen, the attribute of joy linked to the Heart in the 'system of correspondences' is an error of translation. The Heart is not injured by joy but a sudden shock to an already vulnerable Heart even from any powerful emotional experience can damage the Heart including joy.

The bipolar condition is in my opinion is a situation where the relationship of the Wood feeding the Fire, a normal condition in the Wu Xing Generating-Controlling Cycle goes out of control and in the Manic phase we find the Fire burning too much Wood too rapidly. While the Fire burns bright we have the manic phase. When the Wood is consumed, the Fire banks and the mood is now muted and marked by depression. One important consideration here is the failure of the Triple burner to coordinate the controlling aspect of the Water to restrain the Fire and limit the wild fluctuations of mood that occurs with this condition.^{viii} The Triple Burner mediates the Kidney-Heart relationship and should always be considered in management of the Bipolar Manic-Depressive Disease.

II. Literature and Shen-Hun-Po [shortened].

With regard to the Shen, Hun, Po etc., during our material life on this planet, Fire and Water meet in the Earth phase, the other source of Heart Blood. Ultimately all are expressed by the Shen-Heart that houses Awareness through which all reaches consciousness.

'Water is of heaven cascading down into the heart where it is life on earth.' Another version is that the Fire of heaven entered the Heart and was taken by the Triple Burner to be stored in the Mingmen, the source of Kidney Yang. Li Shi-Zhen supports this perspective in this 16th century excerpt: "According to recent findings, mingmen is located between the two kidneys."²¹ This Fire of the Mingmen is carried to the Heart by the Triple Burner and resides there to the degree that the Heart is free of longings and addictions. Triple Burner is a servant of *ming men* for the distribution of Original Breaths, *yuan qi*, through the body.

ⁱ Maciocia, G.; *The Foundations of Chinese Medicine*; Churchill-Livingstone, 1989, Pg. 23

ⁱⁱ Nei Jing; "Simple questions"; Chapter 39

ⁱⁱⁱ Hammer, Leon I., M.D.; *Dragon Rises Red Bird Flies*; Eastland Press, 2005; Chapter 14

^{iv} Hammer, Leon I. M.D.; *Awareness in Chinese Medicine*, *The American Acupuncturist*, Fall 2007, Volume 41

^v Hammer, Leon I.; *A Discussion of Terrain, Stress, Root and Vulnerability*; *Chinese Medicine Times*, Volume 5, Issue 1, Spring 2010

^{vi} Wiseman-Ellis; *Fundamentals of Chinese Medicine*; Paradigm Publications; 1996, Pg 154

^{vii} Hammer, Leon I.M.D.; *The Liver in Chinese Medicine*; *Medical Acupuncture* September 2009, Vol. 21, No. 3: 173-178

^{viii} *ibid*

²¹ Li Shi-Zhen: *Pulse Diagnosis*. Paradigm Press, Brookline, MA 1981, p.7.