The Development of Wind Aetiology in Chinese Medicine. Part Two - Clinical Application

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istorically, the demon wind resided in caves, tunnels, or valleys created by Pan Gu as he Lemerged from the egg (ancient China's version of the big bang theory) (Zhang and Rose 1995). These caves, tunnels and valleys are also used in acupuncture literature to designate points in the skin through which qi is able to penetrate the body (as well as flow out) and at which it is appropriate to apply needles in order to influence the inner qi (Unschuld 1985). Certain acupuncture points are more appropriate than others when influencing wind type patterns, for example, in the Shang Han Lun it states "When in greater yang disease, [the patient] has initially taken Cinnamon Twig Decoction (Gui Zhi Tang), but is vexed and [the exterior] is unresolved, first needle Wind Pool (Feng Chi - GB 20) and Wind Mansion (Feng Fu - DU 16)". Again in the Essential Questions, the Yellow Emperor says "I have heard that wind is the beginning of the hundred diseases; what is the method of treating it by acupuncture"? His adviser Qi Bo replies "Wind enters from the exterior giving rise to shivering, sweating, headache, heaviness of the body and aversion to cold. Treat it by needling Feng Fu DU-16" (cited in Deadman and Al-Khafaji 1998).

Wind can be separated into two categories: external and internal. Symptoms vary, depending on whether wind has affected the zangfu, blood vessels, or channels. External wind is associated with Mankind's surrounding environment, whilst the concept of internal wind was born out of the need to treat one of the four major problems of internal medicine, wind stroke (zhong feng). Prior to the Tang dynasty (618-907AD), external wind was thought to be the principal factor in causing wind stroke. Centuries of clinical experience determined later that exogenous wind was not the causing factor. When physicians of the Song (960-1279AD) and Yuan (1279-1368AD) dynasties recognised that external wind treatment insufficient, and indeed sometimes dangerous, they proposed the theory of internal wind (Maclean and Lyttleton 2000). This new concept of the body having and being able to produce its own internal wind fitted with the ancient Chinese theory of the human body representing a microcosmic replica of the whole universe with its own geological system. At this point, wind moved back from a macrocosmic, naturalistic perspective to a microcosmic level. This important development in Chinese medicine signalled the unification of wind as a dualistic pathogen and allowed it to open a new front of attack against its greatest adversary, qi.

It is possible for a person to suffer from both external and internal wind at the same time. External wind can lead to internal wind, however internal wind cannot directly generate external wind, but can cause enough internal disruption to weaken the body's defences and allow external wind to invade.

There are six types of qi that manifest in the natural environment in six different forms; wind, damp, dryness, cold, heat and summer heat. The notion of wind being classified as a form of qi probably occurred as the concept of qi populated the Suwen. These six climatic factors were first recorded in the Suwen, but were segregated and never acted together in disease formation. During the Han dynasty the six pathogenic factors were then categorised together (Zheng 2005). Under normal conditions they do not produce pathological changes in the body (Cheng 1999). Many environmental variations can combine with wind. In the text 'Shen Nong Ben Cao Jing', the different types of wind and other pathogenic factors were united together and disorder category names used, i.e. windcold, wind-damp, wind-heat, etc (Zheng 2005). In the Shang Han Lun, the terms wind-cold, wind-damp, wind-heat, etc were also used. During the Sui and Tang dynasties the knowledge of wind disorders advanced rapidly, then during the Song and Yuan dynasties, wind disorders was one of thirteen specialist fields. The most comprehensive collection of writings on wind was written during the Song dynasty by Zhao Da Zhong, titled Feng Ke Ji Yan Ming Fang, a collection of twenty-eight volumes. In the Qing dynasty, wind patterns were further classified within Wen Bing theory in the classical text Wen Re Jing Wei (Zheng

2005). When the six types of qi are imbalanced they become the six exogenous pathogenic factors, all of which can damage yin, yang, qi and blood. This imbalance and change from the six types of qi to the six evil qi occurs when the climatic changes are either extreme or sudden, or when the body's resistance is low.

Wind is the most important class of exogenous pathogen and one that heads the six evil qi. The other five types are seasonal, whereas wind exists all year round and causes disease whenever the defensive ability of the body declines (Chen 1997). Wind acts as a vehicle for the other five pathogenic evils to enter the body. It then acts to command the movement of the accompanying exogenous evils' attack against the genuine qi, similar to qi commanding the movement of blood. Once inside, the exogenous pathogens form powerful destructive unions. In the process of causing disease, the six exogenous factors may influence each other and may, under certain conditions, transform into each other. For example, pathogenic cold can transform into heat and prolonged summer heat can result in dryness by consuming the body's yin (Cheng 1999).

Wind follows a set pattern of attack that's well documented within the Suwen. It progresses through the body via the jingluo system, much like natural wind moving through caves and tunnels. The Huang Di Nei Jing Su Wen lists a system of categorisations with sub categorisations. The diaphragm divides the body into two distinctive halves, above the diaphragm is yang and below it is yin. The two organs above the diaphragm are the heart and lung. Within the fourfold sub categorisation of yin and yang dualism, the heart is labelled yin and the lung yang, as yang goes above yin (Unschuld 2003). This explains why wind, air in motion; a yang evil, attacks the lung first, as stated in chapter 29 of the Suwen; "When one is invaded by a robber wind or depletion evil, the yang [conduits] receive it...Hence the yang [conduits] receive the wind qi...Hence if one was harmed by wind, the upper [part of the body] receive it first". However, if wind strikes in spring, it attacks the liver first. Once the lung has been attacked by wind, the pathogen can move to its dualistic opposite, again based upon the four fold sub categorisation of yin and yang, to the pericardium, as Ye Tian Shi states "When warm pathogens attack above, they first attack the lungs and then countertransmit into the pericardium" (Jian and Seifert 2000).

The metaphorical value of wind as something that moves constantly was used to explain a moving block, known as a bi (obstruction) pattern. Allopathic syndromes, such as arthritis, correspond with bi patterns. The Suwen states "When the three qi; wind, cold and dampness arrive together, they merge and cause a block. In the case wind qi dominates, this causes 'moving block'. In the case the cold qi

dominated, this causes 'painful block'. In the case the dampness qi dominates, this causes 'attached block'". "If one encounters these [qi] in winter, this leads to bone block. If one encounters these [qi] in spring, this leads to sinew block. If one encounters these [qi] in summer, this leads to vessel block. If one encounters these [qi] in [the period of] extreme yin, this leads to muscle block. If one encounters these [qi] in autumn, this leads to skin block". Bi patterns are caused by an external wind which is often accompanied by another climatic evil, for example cold. Together they progress through the body, blocking the jinglou and inhibiting the movement of qi and blood. Bi patterns are not caused by an internally generated wind.

Diagnostics

The parameters listed by Qi Bo as decisive for determining the present location of wind diseases include the inspection of a patient's complexion, as stated in the Suwen; "The appearance of lung wind [is such]: Their [facial] colour is a pale white. It is diagnosed above the eyebrows; the colour there is white. The appearance of heart wind [is such]: Their [facial] colour is red. It is diagnosed at the mouth; the colour there is red. The appearance of liver wind [is such]: Their [facial] colour is slightly greenish. It is diagnosed below the eyes; the colour there is greenblue. The appearance of spleen wind [is such]: Their [facial] colour is slightly yellow. It is diagnosed above the nose; the colour there is yellow. The appearance of kidney wind [is such]: Their [facial] colour is [that of] soot. It is diagnosed above the jaws; the colour there is black". The previous passage reiterates wind's involvement in all diseases and is a further elaboration of the chapter titled 'Discourse on Various Issues Concerning All Winds'. According to this chapter, wind lies at the root of all diseases and therefore wind can be observed on the patient's face using facial diagnostic methods mentioned above.

Another indicator of wind's presence is watering of the eyes, as chapter 42 of the Suwen states: "In case the [afflicted] person is fat, then the wind qi cannot flow away toward outside. This, then, causes a heated centre and yellow eyes. In case the [afflicted] person is lean, then [the wind qi] flows away toward outside, and [the patient feels] cold. This, then, causes a cold centre and tears to flow". Yellowing of the sclera is a clear indicator of jaundice, a liver disorder. Watering of the eyes occurs when wind pushes water out of the eye like wind lapping up the sea onto the beach shore. The tears are associated with a loss of liver vin or liver blood.

A wind pulse will always mimic the characteristics of wind in nature. Wind is yang and floats; hence a floating pulse corresponds to a wind pattern. Zhang Ji's analysis of the floating pulse is interesting: "In reverting yin wind strike, a pulse that is slightly floating indicates [the person is] about to recover. [If

the pulse] is not floating, it means [the person will] not yet recover" (Shang Han Lun). When the pulse is floating, it can indicate an exterior pattern, but it can also be a sign the disease is moving outwards prior to recovery as the genuine qi fights with wind and forces it out from the body. During this phase it is important the patient remains covered and protected from climatic evils. As wei qi opens the pores of the skin to expel the defeated pathogen, a fresh wind can enter and launch a new vicious attack creating a renewed cycle of disharmony.

External wind

The clinical manifestations of external wind greatly reflect wind in nature; it affects the top half of the body (like a tree being blown by wind), has a rapid onset (intense action), the migration of signs and symptoms from one area of the body to another (swift movement and lightness) and it ascends, pervades with its upward, outward movement (Beijing University of TCM 1998, State Administration of TCM 1995, Wu and Zhu 2002). Wind can only gain entry into the body via the skin, mouth and nose if either; the wei qi is weak and the wind qi is stronger, the wind qi attacks the body where vital qi is deficient or if wind qi accumulates, making genuine qi deficient. The body may be 'hit' (chung) by outside agencies such as wind and therefore possesses 'guards' (wei) and 'army camps' (ying) to deal with intruders (Unschuld 1985).

Wind patterns

Wind attacking by itself is known as a greater yangwind strike pattern (Mitchell, Ye and Wiseman 1999). The primary signs of wind attack are headache, fever, an aversion to wind and cold, spontaneous sweating and a pulse that is floating and moderate. Zhang Ji summed up the pathomechanism of these signs in the Shang Han Lun: "weakness in the construction and strength in the defence". The defence is yang and defends the exterior. The construction is yin and nourishes the exterior. When wind invades the exterior, the defence yang floats exuberantly to the exterior to resist the invasion, causing fever. Thus, here "strength in the defence" means that the defence has contracted the evil. It is not a statement of the physiological strength of the defensive yang. As wind invades, the defensive yang is less effective in performing its basic functions, is unable to secure the exterior; constructionyin is not contained and spontaneous sweating occurs. Sweating in the Shang Han Lun is termed "weakness in the construction", referring to the deficiency of the defensive qi and its inability to contain yinconstruction (Mitchell, Ye and Wiseman 1999).

When a wind pattern has lasted for five to six days and has moved from greater yang to lesser yang, half exterior-half interior, there are alternating signs of chills and fever as Zhang Ji writes: "When in wind damage [that has lasted for] five to six days, [there is] alternating [aversion to] cold and heat [fever]; [the person] suffers from fullness in the chest and rib-side, taciturnity with no desire for food or drink, heart vexation and frequent retching, or possibly [there is] vexation in the chest and no retching, or thirst or pain in the abdomen, or a hard glomus under the rib-side, or palpitations below the heart with inhibited urination, or absence of thirst with mild generalised heat, or cough; then Minor Bupleurum Decoction (xiao chai hu tang) governs". Alternating fever and chills are unique to lesser yang diseases. In greater yang patterns, aversion to cold and fever appear simultaneously. In yang brightness patterns, fever occurs without an aversion to cold. In malaria or malaria-like patterns, alternating aversion to cold with fever can be seen, but generally it occurs at set times of the day every other day (Mitchell, Ye and Wiseman 1999).

Women are particularly vulnerable to wind attack, especially before the start of their menstrual cycle. During this time, wind is given an opportunity to enter the blood chamber, as the Shang Han Lun explains: "When a woman with wind strike has fever and aversion to cold, and the menstrual flow happens to arrive, [then] seven or eight days, [after] contracting [the illness] the heat is eliminated, the pulse is slow, and [there is] generalised coolness, fullness under the chest and rib-side, [and] signs like chest bind and delirious speech, this means that the heat has entered the blood chamber. One should needle Cycle Gate (Qimen LV14), choosing this point in the view of the repletion". The menstruation empties the blood chamber of blood each month. This leaves an emptiness that wind exploits and enters to fill. After seven or eight days, wind transforms into heat and binds with the blood causing malaria-like symptoms; "When a woman with wind strike [that has lasted for] seven or eight days, has periodic heat [effusion] and [aversion to] cold and the menstrual flow happens to stop, this means that the heat has entered the blood chamber and the blood will bind, causing a malarialike condition that occurs at [set] times; [therefore] Minor Bupleurum Decoction (xiao chai hu tang) governs" (Mitchell, Ye and Wiseman 1999). Wind can also strike after childbirth using the same mechanism as above. Zhang Zhong Jing states in such circumstances to use the herb Bai Tou Weng (Radix Pulsatilliae Chinnensis). The classical text Ben Cao Wen Da states this herb works well because in its natural environment, the plant doesn't move when the wind blows. The colour of the plant is also white, the colour of metal and so controls wood. The taste is bitter and can clear wind and heat.

Wind-cold patterns

This pattern involves wind and cold, a yin pathogenic factor, which injures yang. Wind cold enters through the pores, tai yang channels and lung where it obstructs

the circulation of yang qi and blood (table 1) (Maclean et al. 2000). Symptoms often manifest as pain and discomfort, such as painful obstruction syndrome (Maciocia 1989). Its main clinical features include acute simultaneous fever and chills as the wei qi fights against the pathogen. Aversion to wind is more predominant than fever, sweating is absent as cold contracts the skin's pores. There will also be accompanying occipital headache, muscle aches and a stiff neck. Zhang Zhongjing states in the classical text 'Synopsis of Prescriptions of the Golden Chamber', that wind and cold affecting the lung will cause the symptoms of nasal obstruction or rhinorrhoea with a thin, watery mucus. This is caused by the impairment of the lung's dispersing and descending function. There may also be sneezing, coughing or wheezing, a thin white tongue coating and a floating or tight pulse (constriction by the cold) (Flaws and Sionneau 2001).

Wind-heat patterns

Chen Ping Bo states in the classical text 'Wen Bing Xue', that wind-heat patterns occur in either spring or winter (Jian and Seifert 2000). This pattern is very similar to wind-cold as it interferes with the circulation of defensive wei qi in the skin and muscles. This leads to an aversion to cold since interference with wei qi inhibits its function in warming the skin and muscles (table 1). As both wind and heat are yang pathogens, the symptoms tend to focus in the upper part of the body. The main clinical features include fever with mild chills or no chills, sore, dry or itchy throat, mild sweating, headache (usually frontal), thirst, cough with thick or sticky yellow mucus, nasal obstruction, or nasal discharge that is thick and yellow or green with a red tipped tongue, a thin yellow coating and a floating, rapid pulse, all yang type symptoms. According to Wen Bing theory, treatment will depend upon windheat's evolvement through the body, as Ye Tian Shi writes "For pathogens in the defence aspect, use sweatinducing medicines". For transmission of pathogens into the qi aspect, it is suggested to use acrid cold heat clearing medicines or bitter cold attacking below medicines. If the pathogen obstructs the pericardium, use heart, orifice opening medicines. During the final stages, when pathogenic heat is weakened and the lung and stomach yin are damaged, use sweet cold clearing and nourishing medicines to treat the lung and stomach yin (Jian and Seifert 2000). Fever in wind-heat patterns is more severe than in wind-cold patterns, where the fever is slight but the aversion to wind is great.

Wind-damp patterns

This pattern is a yin pathogenic factor (table 1). As wind-damp invades the skin, it migrates around the body, causing qi stagnation, blood stasis and painful obstruction syndrome (Maciocia 1989). Symptoms are not confined to the upper part of the body alone as dampness tends to sink, where it is whipped up by

wind and propelled around the body. Symptoms will present as pain, discomfort, aversion to wind, lethargy, loose-sticky stools, abdominal distension, a thick white tongue coating and a floating, sluggish pulse; all damp type symptoms.

Wind-dry patterns

This pattern involves a yang pathogenic factor that injures blood and yin. It can occur in dry climatic conditions or in artificial environments, such as in very dry, centrally-heated buildings. It may also follow a wind-heat attack that dries and damages body fluids. The lung is especially sensitive to dryness as it needs moisture to expand and contract freely. The clinical symptoms include dryness, particularly in the nose, lips, mouth and throat. This will be accompanied with cracked lips, mild fever, aversion to wind and cold, headache, slight sweating, dry cough with little or no mucus, dry tongue with a slightly red body and a thin white coating, with a floating, wiry and possibly rapid pulse as the dryness turns to heat.

Wind-stroke patterns

Wind-stroke is primarily classified as an internal wind disorder. However, when external wind invades the body and enters the channels it mimics internal wind-stroke symptoms of facial paralysis or motor dysfunction (Maclean and Lyttleton 2000). Symptoms include numbness or motor dysfunction of the extremities, sudden facial paralysis, dysphasia, possible fever and chills, arthralgia, a thin, white tongue coating and a floating, wiry, thready pulse.

Common Characteristics	Pattern			Clinical manifestations
Sudden onset	Exogenous wind	Wind		Fever, aversion to cold, sweating, cough, thin white tongue, floating pulse and nasal obstruction
Rapid change in symptoms and signs		Wind-cold		No sweating, marked aversion to cold, light fever, deep headaches, joint ache, thin white coating on tongue, floating tight pulse, clear urine, painful obstruction syndrome
Migration of signs and symptoms		Wind-heat		High fever, slight aversion to cold, headache, red eyes, sore throat, thirst, dark yellow urine, sides and tip of tongue red, floating rapid pulse and yellow nasal discharge
• Causes tremors, stiffness, convulsion and paralysis		Wind- dampness	Exterior	Fever, aversion to wind, sluggishness, soreness in the limbs and sweating
			Superficial area of the body	Itchy skin, skin rashes and eczema
Affects the top half of the body			Interior	Swollen face, swollen neck, little urination, aversion to wind, fever, cough, little thirst, floating pulse and painful obstruction syndrome
Affects the Lung first		Wind-dryness		Dryness of throat, lips, tongue, mouth, skin and stools, with scanty urine
Affects the skin		Blood deficiency Liver-yang rising		Numbness, dizziness, blurred vision, slight tremors, tics, pale tongue, twitching and slow feeble pulse
• Causes itching	Endogenous wind			Severe dizziness, vertigo, headaches, general irritability, tremors, numbness, coma and wind-stroke
		Extreme heat		High fever, delirium, coma, opisthotonos, convulsions, rigidity, deep red tongue, spasm and rapid forceful pulse

Table 1. Summary of exogenous and endogenous wind (adapted from Yanchi 1998).

Internal wind

Zhang Zhongjing describes in the classical text 'Synopsis of Prescriptions of the Golden Chamber' how external wind affects the liver; "When the liver is affected by pathogenic wind, the patient feels pain on both flanks and walks with his back bent. His head shakes and eyelids jump. He begins to show a preference for sweet food" (Luo 1995). It wasn't until later; during the Song and Yuan dynasties that internal wind was formulated and these preceding symptoms were categorised as being induced by an internal wind rather than an external pathogen.

The writings of Liu Wansu, Zhu Danxi, and Li Dongyuan all describe the existence of an internal wind, yet they focused on different internal mechanisms that may be responsible for its production (Fruehauf 1994). In general, internal wind is caused by a physiological dysfunction involving a blood or yin deficiency, or extreme heat. It was the physician Zhu Danxi who

proposed the concept of wind-stroke and sought to control it by "treating the blood first before treating the wind" (Tian and Damone 1992). To understand this treatment strategy we need to look at how wind is created. In the external environment, wind is formed as a result of differentials in air pressure that exist between cells of air that form in the atmosphere. We often talk about wind "blowing" but actually wind is more a result of suction. Areas of relatively low pressure (yin) suck in air from areas of relatively high pressure (yang) and create movement, which we term wind. These areas of low pressure have within them an area of emptiness (vacuity/deficiency) that initiates the movement of air. This can be applied to internal wind, where an area of emptiness (vacuity/deficiency) is filled by wind. Wind follows the same principles of qi as it strives to find a balance within its surroundings, yet this 'balance' results in a negative effect upon the host. To eradicate internal wind, it is necessary to follow Zhu Danxi's strategy and tonify blood to obtain a therapeutic effect. By tonifying and regulating blood,

the quantity of blood increases. Some commentators interpret Zhu Danxi statement of "activating the blood so that wind may automatically subside" to imply that blood simply replaces the internal wind. But where does the internal wind go? Is it forced out by the increased quantity of blood? Or using dualism theory, as the quantity of blood increases, is it the requirements of blood to be commanded by qi that forces wind to mutate into its dualistic opposite, qi? Within Chinese medicine theory, blood is the mother of qi; if a lack of blood is unable to restore qi (mother is unable to restrain the son), the son (qi), becomes reckless, ruins the mother and mutates into wind, which counteracts against blood.

The mechanisms of internal wind patterns have a clear scale of severity. Blood deficiency patterns cause a mild internal imbalance, yin deficiency with yang rising leads to a stronger imbalance and in cases of extreme heat, the greatest imbalance is seen. In blood deficiency patterns, a quantity of qi becomes unanchored and it floats about as wind. In yin deficiency patterns, yang becomes involved, making the imbalance worse because the volume of qi has increased. In extreme heat patterns, the heat is strong enough to break the link between qi and blood, allowing an abundant amount of qi available to become wind (Scott 2003). The treatment methods used for extreme heat patterns illustrates this as they involve anchoring (settling) the qi down with heavy minerals, such as Dai Zhe Shi (Haematitum), Mu Li (Concha Ostreae) and Long Gu (Os Draconis), to reunite the connection with qi and blood and quell internal wind.

Blood deficiency patterns

Within this pattern there are two possible ways in which symptoms arise. As blood is deficient there is an excessive amount of qi willing to command it. This abundance of qi can develop into internal wind. In addition, as blood is deficient, it's unable to perform its function of nourishing the tendons and muscles. Both pathomechanisms cause the symptoms of twitching, uncontrolled muscle movements, limb numbness, muscular contracture, reddish tongue or red tongue with insufficient fluid and a thready pulse (as the blood is scanty and the vessels are empty) (Peng 2000). Liver blood relies on kidney jing to nourish it and only plentiful liver blood can be transformed into kidney jing. When kidney jing withers and dries up during mid-life, liver blood becomes insufficient, thereby increasing the chances of this pattern occurring (Li 1989). Allopathic medicine conditions associated with this pattern include Parkinson's disease.

Liver yang rising patterns

The liver is the 'resolute organ'; it must receive yin from the kidney and be moistened by it (water fails to nourish wood). Common symptoms of this pattern include trembling, stiffness and progressive impairment of movement. Allopathic medicine conditions associated with this pattern include Parkinson's disease. Parkinson's disease manifests with specific symptoms such as trembling, stiffening of the muscles, restriction of movement and the obstruction of certain reflexes of the body. The text Zhengzhi Zhunsheng (Criteria for the Treatment of Disease) states: "Trembling of both hands, often seen simultaneously with uncontrolled tremors of the head, is due to the inability of the tendons to restrain; that belongs to liver wind." It also states: "The neck is the meeting point of all the yang channels. When the liver gi rushes upwards, the head will start moving by itself; ... when it spreads into the four limbs, the hands and feet will move and the head will stay still." Other symptoms include phlegm, mental confusion, dizziness, a tendency to fall over, severe headaches, numbness and tremor or involuntary limb movement, difficulty in speaking, walking haltingly, a red tongue and a wiry, thready, rapid pulse or a wiry, tense pulse (Peng 2000). This develops when the rising, disruptive forces of yang are unleashed, creating internal wind. As wind is yang in nature, it floats upwards, forcing qi and blood up with it. When wind attacks the heart and the head (via the liver channel) it injures the spirit (shen), causes mental disorientation and a loss of consciousness. Difficulty in speaking and aphasia are due to a heart disturbance. If phlegm is present, wind propels it to obstruct the heart orifices. This further contributes to mental disorientation. There are a number of important herbs that are used to eradicate internal wind, for example, in the classical text Ben Cao Wen Da, it states that Tian Ma (Rhizoma Gastrodiae Elatae) is especially good at combating internal wind. In it's natural environment when wind blows Tian Ma (Rhizoma Gastrodiae Elatae) doesn't move, but when the weather is calm, it gently sways.

Extreme heat patterns

This pattern (table 1) occurs in the late stages of a febrile disease when wind-heat enters the blood level and generates internal wind (Maciocia 1989). Hyperactivity of pathogenic heat injures both qi and blood, causing their separation. Qi is light, mostly invisible; if let free, it rises, hence it is considered yang. Blood is a thick liquid; if let free, it flows downward, hence it is categorised yin (Unschuld 2003). This separation can allow qi to mutate into wind, as qi has lost its purpose of commanding blood. The internal wind then rises to harass the clear openings (heart orifices) resulting in dizziness and distending pain in the heart. When extreme heat wind attacks the pericardium, it injures the spirit (shen), disturbs the mind, and causes mental disorientation and coma (Brown 1984). Transverse penetration of the channel vessels causes vexation of the hands and feet and convulsions. Limb rigidity, tightly closed jaw, upward gazing eyes and arched back and rigidity are

manifestations of stirred wind as it burns liver yin, with liver blood failing to nourish tendons and muscles, causing them to become hot, rigid and dry. The dorsally arched posture is partly due to the attack by extreme heat on the du channel, the sea of yang. Allopathic medicine conditions associated with this pattern include epilepsy.

Extreme heat generating internal wind occurs more commonly in children, i.e. fright wind, as a complication of febrile diseases like measles, encephalitis and meningitis. Other symptoms include pyrexia with polydipsia, opisthotonos, unconsciousness, crimson tongue, yellowish fur and a wiry, rapid pulse (Peng 2000).

Wind-stroke patterns

The classification of wind stroke patterns are divided into either jingluo stroke, zangfu stroke or both together at the same time. Allopathic medicine conditions associated with these patterns include transient ischaemic attacks (TIA) and cerebro-vascular accidents (CVA).

Jingluo stroke patterns

This pattern affects the channels only and does not cause a loss of consciousness. The main symptoms are facial paralysis, dysphasia and hemiplegia. There are usually predisposing factors such as a yin deficiency or phlegm heat, which are generally seen in older people. *Yin deficiency with liver yang rising patterns*

The mechanisms of this pattern are the same as the liver yang rising pattern above. Clinical features include dizziness, vertigo, headache, tinnitus, blurred vision, pressure behind the eyes, sudden loss of vision in one eye, flushed face, irritability and restlessness, insomnia or restless dream disturbed sleep, lower back pain, hypertension, progressive unilateral motor dysfunction, weakness, paralysis or numbness of the extremities, facial paralysis and dysphasia (Maclean and Lyttleton 2000).

Phlegm heat patterns

Phlegm obstructs the movement of qi and blood. Clinical features include sudden heaviness, numbness or paralysis of the extremities on one side of the body, facial paralysis or dysphasia, disordered consciousness, dry stools or constipation, possible dizziness with copious sputum and drooling. The tongue will be stiff, quivering or deviated to one side, characteristic of a wind/liver pattern, with a greasy yellow coating and a wiry, slippery pulse.

Zangfu stroke patterns

This is a chronic disorder caused by serious damage to the zangfu. Symptoms include a loss of consciousness as well as hemiplegia, facial paralysis and dysphasia. This usually leads to permanent disability or even death (Maclean and Lyttleton 2000). Zangfu stroke patterns are further categorised according to flaccid or closed patterns. When the wind has passed, it leaves the channels either empty (flaccid-type wind-stroke) or closed (spastic-type wind-stroke). Symptoms are unilateral because pathogenic factors attacking at the channel level usually attack one side only (Brown 1984).

Flaccid patterns

This involves the sudden collapse of yang forming a state of unconsciousness caused by a severe deficiency of yin. Yin is unable to balance yang and at the point where they both separate, death occurs. This is different to the separation of qi and blood seen in extreme heat patterns, as qi and blood are merely classified as belonging to either yin or yang rather than being yin and yang themselves. The clinical features include a loss of consciousness or coma, cold limbs, incontinence of urine and stools, pale or swollen complexion, copious sweating, flaccid extremities, a flaccid and pale tongue and a minute pulse.

Closed patterns

This is an excess pattern unlike flaccid syndromes which are formed by a deficiency. The yang qi is imprisoned within the body, which leads to spasms. The excess may be either hot or cold.

- Hot patterns: this pattern is yang and usually follows the progression of phlegm-heat or wind-phlegm channel stroke into full unconsciousness. The clinical features include; loss of consciousness or coma, clenched jaw and fists, stiffness or spasm in the limbs, laboured breathing, red complexion, a greasy yellow tongue coating and a slippery, wiry, rapid pulse (Maclean and Lyttleton 2000).
- Cold patterns: this pattern is yin in nature and may follow a constitutionally yang deficient or cold person. Symptoms include loss of consciousness or coma, clenched jaw and fists, stiffness or spasm in the limbs, pale or swollen complexion, cold extremities, copious sputum, a greasy white tongue coating and a deep, slippery and moderate pulse (Maclean and Lyttleton 2000).

Combined jinglou and zangfu patterns

In this pattern, both the jingluo and the zangfu are affected. Symptoms include hemiplegia, facial paralysis, loss of vision and dysphasia. They are a result of a variety of patterns including; qi deficiency

with blood stagnation, liver yang rising with blood stagnation, wind phlegm, as well as liver and kidney yin and yang deficiency (Maclean and Lyttleton 2000).

Case file

To explain how external and internal wind can disrupt the body, a case report is given below:

Male, 54. May 2004.

Main complaint was paralysis on the left side of the face for 4 days. Symptoms included paralysis and discomfort that started suddenly in the morning at 6.30am, whilst driving with the car window down. At the time of the attack, the patient had a quick temper, bitter taste in his mouth and dizziness. He had a history of hypertension (180/120mmHg) and coronary heart disease. Before the attack he had an aversion to heat, but that had now changed to an aversion to cold. His energy levels were normal and he didn't sweat by day or at night. He complained of insomnia and defecated once a day in the morning. His appetite was normal. He suffered from frequent urination at night and was emotionally stressed with a headache that ran behind the ear. The tongue body was normal in colour but was dry, with a white coating. The pulse was wiry.

This case illustrates both aspects of wind, internal and external. Hypertension, aversion to heat, emotional stress, insomnia and coronary heart disease suggest a history of internal liver wind. Middle age and the withering of kidney yin exacerbated this problem. A recent attack of external wind in late spring caused by driving with the car window down triggered symptoms of facial paralysis, with a sudden onset, an aversion to cold, bitter taste in the mouth, dizziness and a headache that ran behind the ear.

Conclusions

In Chinese medicine, the evolved concept of wind documented by the Suwen signalled a move away from demonist influences such as bugs, towards ontic, naturalistic, environmental factors in disease. With the development of the internal wind concept during the Song and Yuan dynasties, wind as a macrocosmic environmental pathogen developed at a microcosmic level. Wind, the most important environmental factor, now had a dual external and internal characteristic. The representation of the body as a microcosmic replica of the universe was now complete and Chinese medicine was able to treat one of the four major disorders of internal medicine.

If Chinese medicine had continued to focus its attention upon demonist influences and develop bug aetiology, it is likely they would have eventually discovered bacteria and demonist influences would have been abandoned in favour of microscopic bug influences. However, they did not. Instead, Chinese medicine chose to focus upon Humankind's place in the cosmos with its surrounding environment, behaviour, lifestyle, diet, exercise and variety of illnesses all of which form part of the systematic correspondence framework. What resulted was the broader, dualistic concept of wind; the root of all illness. Not only did this provide a framework to study, observe and treat an array of diseases from ancient times through to today, but it also provided a framework for the expansion and creation of a much more complex and elusive theory, qi itself.

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