INFLUENZA A (H1N1)

Background

The new strain of influenza A (H1N1) was first reported from Mexico this year (2009). The spectrum of disease caused by new influenza A (H1N1) virus infection ranges from non-febrile, mild upper-respiratory tract illness to severe or fatal pneumonia. Most cases appear to have uncomplicated, typical influenza-like illness and recover spontaneously. The most commonly reported symptoms include cough, fever, sore throat, malaise and headache.

Most commonly reported symptoms include:

- cough
- fever
- sore throat
- malaise
- headache

Fever has been absent in some outpatients and in up to 1 in 6 surviving hospitalized patients. Gastrointestinal symptoms (nausea, vomiting and/or diarrhoea) have occurred in up to 38% of outpatients in the United States.1 Almost one-half of the patients hospitalized in the United States, and 21 of 45 (46%) fatal cases in Mexico for whom data are available, have had underlying conditions, including pregnancy, asthma, other lung diseases, diabetes, morbid obesity, autoimmune disorders and associated immunosuppressive therapies, neurological disorders and cardiovascular disease.

Among 45 fatal cases in Mexico, 54% were among previously healthy people, most of whom were aged 20–59 years. Case fatality ratios were lower in children and teenagers than in adults, for reasons to be determined. Rapidly progressive respiratory disease has accounted for most severe or fatal cases.

“Rapidly progressive respiratory disease has accounted for most severe or fatal cases” From the Chinese medicine viewpoint, this is due to transmission of external pathogenic factor from the Wei Level to the Qi Level with the pattern of Lung-Heat and then eventually to the Ying and Blood Level.

In Mexico, the median time from onset of illness to hospitalization was 6 days (range, 1–0 days) in 45 fatal cases, compared with a median of 4 days in hospitalized cases in the United States. In fatal cases, the presenting manifestations have included fever, shortness of breath, myalgia, severe malaise, tachycardia, tachypnoea, low oxygen saturation and, sometimes, hypotension and cyanosis. Several patients experienced cardiopulmonary arrest shortly after arrival at hospital. Diarrhoea has been uncommon in hospitalized cases.2

Signs of influenza A(H1N1) are flu-like, including fever, cough, headache, muscle and joint pain, sore throat and runny nose, and sometimes vomiting and diarrhoea.

WEN BING AND THE FOUR LEVELS
Acute respiratory infections cannot be diagnosed and treated properly without a thorough understanding of the theory of the 4 Levels. From the Chinese medicine point of view, the beginning stages of an acute respiratory infection usually manifest with symptoms of invasion of Wind. These can be interpreted either from the perspective of the 6 Stages from the *Shang Han Lun* or that of the Four Level from the *Wen Bing* School. In my experience, the latter is clinically more relevant.

The “Discussion of Cold-induced Diseases” (*Shang Han Lun*) by Zhang Zhong Jing provided the earliest framework for the diagnosis and treatment of diseases from exterior Wind-Cold. Although this famous classic does also discuss invasions of Wind-Heat and their treatment, a comprehensive theory of exterior diseases from Wind-Heat was not developed until the late 1600s by the School of Warm Diseases (*Wen Bing*). Thus, the two schools of thought which form the pillars for the diagnosis and treatment of exterior diseases in Chinese medicine are separated by about 15 centuries: they are the School of Cold-induced Diseases (School of *Shang Han*) based on the “Discussion of Cold-induced Diseases” (“*Shang Han Lun*”) by Zhang Zhong Jing ©. AD 220) and the School of Warm Diseases (*Wen Bing* School) which started in the late 1600s and early 1700s. The main advocates of this school were Wu You Ke (1582-1652), Ye Tian Shi (1667-1746) and Wu Ju Tong (1758-1836).

**WEN BING - THE FOUR LEVELS**

What does “*Wen Bing*” mean? The above-mentioned doctors from this school of thought introduced important innovations to the theory of Wind in Chinese medicine. The School of *Wen Bing* postulates that some exterior pathogenic factors go beyond the natural characters of “Wind”; they are so virulent and strong that, no matter how strong a person’s body’s Qi may be, men, women and children fall ill by the dozen. More importantly, for the first time in the history of Chinese medicine, these doctors recognized that some external pathogenic factors are *infectious*.

A further innovative idea stemming from this school was that the pathogenic factors causing *Wen Bing*, all of them falling under the category of Wind-Heat, enter via the nose and mouth, rather than via the skin as happens for Wind-Cold.

The essential characteristics of *Wen Bing* diseases therefore are:

1. They manifest with the general symptoms and signs of Wind-Heat in the early stages (Wind-Heat is intended here in a broad sense as it may also manifest as Damp-Heat, Summer-Heat, Winter-Heat, Spring-Heat and Dry-Heat);
2. There is always a fever;
3. They are infectious;
4. The Wind-Heat penetrates via the nose and mouth;
5. The pathogenic factor is particularly strong;
6. The Wind-Heat has a strong tendency to become interior Heat;
7. Once in the Interior, the Heat has a strong tendency to dry up body fluids.

It is easy to see how this theory corresponds perfectly to the modern view of infectious viral diseases such as influenza.

**An influenza epidemic or pandemic is a typical *Wen Bing* disease. This is because it is very virulent and has a strong tendency to enter the Qi level (causing chest infections) very quickly.**

We may not always be able to stop a *Wen Bing* disease at the Wei Level: even though we may not stop them at the Exterior level, Chinese medicine can certainly achieve the following aims:
- Alleviate the symptoms
- Shorten the course of the disease
- Prevent transmission to the Ying and Blood levels (see below)
- Prevent complications
- Prevent the formation of residual pathogenic factors

The Four Levels

The 4 Levels are:

1. **Wei-Qi Level (Wei Level)**
   - Wind-Heat
   - Damp-Heat
   - Summer-Heat
   - Wind-Dry-Heat

2. **Qi Level**
   - Lung-Heat
   - Stomach-Heat
   - Stomach and Intestines Dry-Heat
   - Gall-Bladder Heat
   - Stomach and Spleen Damp-Heat

3. **Ying-Qi Level**
   - Heat in Pericardium
   - Heat in Nutritive Qi

4. **Blood Level**
   - Heat Victorious agitates Blood
   - Heat Victorious stirs Wind
   - Empty-Wind agitates in the Interior
   - Collapse of Yin
   - Collapse of Yang

The first Level concerns the exterior stage of an invasion of Wind-Heat, the other three Levels describe pathological conditions which arise when the pathogenic factor penetrates the Interior and turns into Heat. The four Levels represent different levels of energetic depth, the first being the Exterior and the other three being the Interior. The interesting part of this theory is the distinction, within the Interior, of three different levels, the Qi Level being the most superficial (within the Interior) and the Blood Level the deepest.

Wei Level

The main symptoms of invasion of Wind-Heat are aversion to cold, shivering, fever, sore throat, swollen tonsils, headache and body-aches, sneezing, cough, runny nose with yellow discharge, slightly dark urine, slightly Red sides of the tongue and a Floating-Rapid pulse. It is worth noting that in Wind-Heat too there is aversion to cold as this is due to Wind-Heat obstructing the Wei Qi which therefore fails to warm the muscles. This corresponds to the beginning stages of influenza when the patient has “aversion to cold”.

With our treatment, we should always aim at expelling the Wind at the Wei Level: even though this may not be entirely possible, it will make the symptoms of the Qi Level milder and it will prevent complications.

Qi Level

At the Qi Level. Wind penetrates into the Interior and it changes into interior Heat or Phlegm-Heat. With influenza, this usually manifests with bronchitis or pneumonia. The Qi
Level is a crucial level as the pathogenic factor can be expelled completely or it can get worse by penetrating further into the Interior at the Ying or Blood level.

The Qi Level symptoms are symptoms of Interior Full Heat: high fever, thirst, sweating, feeling of heat, red face.

At the Qi Level, the tongue is Red with a thick-yellow coating and the pulse is Full and Rapid. As long as there is a coating, the patient is still at the Qi Level. When the coating falls off, the patient is at the Ying or Blood level.

Ying/Blood Level

At the Ying and/or Blood Level, Heat has injured Yin so that the tongue has no coating (and it is Red). The Ying or Blood Levels are always dangerous because it may lead to mortality. Internal Wind may develop at the Blood Level and convulsion in children during febrile diseases always indicate the presence of internal Wind at the Blood Level.

The symptoms of the Ying Level are fever at night, mental confusion, delirium, cold hands, Red tongue without coating. The symptoms of the Blood Level are fever at night, possibly convulsions, maculae, bleeding, Red tongue without coating.

Influenza

Infection from the common cold or influenza virus takes place through the upper respiratory tract and may occur in any season but it is more frequent in Winter or Spring. From the Chinese point of view, they usually manifest with symptoms either of Wind-Heat.

Influenza is a viral infection of the upper respiratory tract. Influenza may be caused by the influenza viruses A, B or C. The present influenza epidemic is of the A type, H1N1 strain.

AETIOLOGY AND PATHOLOGY

An invasion of an exterior pathogenic factor is due to a temporary and relative imbalance between it and the body's Qi. This imbalance may occur either because the body's Qi is temporarily and relatively weak or because the pathogenic factor is very strong. The body's Qi may be temporarily and relatively weak due to overwork, excessive sexual activity, irregular diet and emotional stress or a combination of these. When the body is thus weakened, even a mild pathogenic factor may cause an external invasion of Wind.

“Wind” indicates both an aetiological factor and a pathological condition. As an aetiological factor, it literally refers to climatic influences and especially sudden changes of weather to which the body cannot adapt. As a pathological condition, "Wind" refers to a complex of symptoms and signs manifesting as Wind-Cold or Wind-Heat. In clinical practice, this is the most important aspect of the concept of Wind. Thus, the diagnosis of "Wind" invasion is made not on the basis of the history (no need to ask the patient whether he or she has been exposed to wind), but on the basis of the symptoms and signs. If a person has all the symptoms and signs of "Wind" (aversion to cold, shivering, fever, sneezing, runny nose, headache and a Floating pulse), then the condition is one of exterior Wind, no matter what climate that person has been exposed to in the previous days or hours.

Indeed, there are also chronic conditions which manifest with symptoms of "Wind" and are treated as such even though they have no relation to climatic factors. For example, allergic rhinitis (due to house-dust mites or pollen) manifests with symptoms and signs of "Wind" and is treated as such.
Influenza may manifest primarily with symptoms of Wind-Heat.

Simultaneous cold feeling and fever

The simultaneous fever and shivers is the most characteristic symptom of the beginning stages of an invasion of Wind: they indicate that there is an invasion of an exterior pathogenic factor and that this factor is still at the Exterior level. As long as there are shivers the pathogenic factor is on the Exterior.

I shall now discuss in detail the pathology and clinical significance of the “aversion to cold” and “fever” in the beginning stage of invasion of exterior Wind.

Aversion to cold

In Exterior patterns, the aversion to cold and cold feeling is due to the fact that the external Wind obstructs the space between skin and muscles where the Wei Qi circulates; as Wei Qi warms the muscles, its obstruction by Wind causes the patient to feel cold and shiver (even if the pathogenic factor is Wind-Heat). Thus, Wei Qi is not necessarily weak but only obstructed in the space between skin and muscles.

Thus, in Exterior patterns, both Wind-Cold and Wind-Heat cause a cold feeling and shivering: it is a common misconception that this is not the case with Wind-Heat. Since the cold feeling is caused by the obstruction of Wei Qi by Wind (whether it is Wind-Cold or Wind-Heat) in the space between skin and muscles, the cold feeling and shivering is present also in invasions of Wind-Heat, albeit to a lesser degree than in Wind-Cold.

Thus, generally speaking, there are three aspects to the “cold feeling” in invasions of exterior Wind: the patients feels cold, he or she has “waves” of shivers, and he or she is reluctant to go out and wants to stay indoors. Except in mild cases, the cold feeling is not relieved by covering oneself.

In conclusion, a feeling of cold in exterior invasions is due to the obstruction of Wei Qi in the space between skin and muscles and it indicates that the pathogenic factor is on the Exterior: as soon as the feeling of cold goes, the pathogenic factor is in the Interior.

Fever

As for “fever” it is important to understand that the Chinese term fa shao or fa re do not necessarily indicate “fever”. “Fever” is a sign in modern Western medicine, not in old Chinese medicine. In old China, there were obviously no thermometers and the symptom fa shao or fa re described in the old texts do not necessarily mean that the patient has an actual fever. It literally means “emitting burning heat” and it indicates that the patient’s body feels hot, almost burning to the touch: the areas touched were usually the forehead and especially the dorsum of the hands (as opposed to the palms which tend to reflect more Empty Heat).

In fact, it is a characteristic of fa re (so-called “fever”) in the exterior stage of invasions of Wind that the dorsum of the hands feel hot compared to the palms and the upper back feels hot compared to the chest. This objective hot feeling of the patient’s body may or may not be accompanied by an actual fever. When the symptoms of shivers and feeling cold occurs simultaneously with the objective sign of the patient’s body feeling hot to the touch (or having an actual fever), it indicates an acute invasion of external Wind and it denotes that the pathogenic factor is still on the Exterior. In particular, it is the symptoms of shivering and feeling cold that indicate that the pathogenic factor is on the Exterior: the moment the patient does not feel cold any longer but feels hot and, if in bed, he or she throws off the blankets, it means that the pathogenic factor is in the Interior and it has turned into Heat.
The fever, or hot feeling of the body in external invasions of Wind is due to the struggle between the body’s Qi (Upright Qi) and the external pathogenic factor. Thus, the strength of the fever (or hot feeling of the body) reflects the intensity of this struggle: this depends on the relative strength of the external pathogenic factor and the strength of the Upright Qi. The stronger the external pathogenic factor, the higher the fever (or hot feeling of the body); likewise, the stronger the Upright Qi, the higher the fever (or hot feeling of the body). Thus the fever will be highest when both the external pathogenic factor and the Upright Qi are strong. Thus, there are three possible situations:

- Strong pathogenic factor and strong Upright Qi: high fever (or hot feeling of the body)
- Strong pathogenic factor with weak Upright Qi or vice versa: medium fever (or hot feeling of the body)
- Weak pathogenic factor and weak Upright Qi: low fever (or hot feeling of the body) or no fever

However, the relative strength of the pathogenic factor and the Upright Qi is only one factor which determines the intensity of the fever (or hot feeling of the body). Another factor is simply the constitution of a person: a person with a Yang constitution (i.e. with predominance of Yang) will be more prone to invasions of Wind-Heat rather than Wind-Cold and will be more prone to have a higher fever (or hot feeling of the body). Indeed, it could be said that the constitution of a person is the main factor which determines whether a person who falls prey to an invasion of Wind develops Wind-Cold or Wind-Heat.

Were it not so, in cold, Northern countries nobody should fall prey to invasions of Wind-Heat which is not the case. This is also the reason why, in children, invasions of Wind-Heat are far more prevalent than Wind-Cold: this is because children are naturally Yang in nature compared to adults. There are, however, also new, artificial factors which may predispose a person to invasions of Wind-Heat when succumbing to Wind and these are very dry, centrally-heated places, hot working conditions (e.g. cooks, metal workers), etc.

**An influenza epidemic definitely manifests with symptoms of Wind-Heat in all cases.**

The most important thing to establish when we see a patient suffering from an acute respiratory infection is whether the stage of the condition is external or internal, i.e. whether the pathogenic factor is still on the Exterior or is in the Interior. In terms of levels, this means distinguishing whether the patient is still at the Wei level or at the Qi level. The differentiation between the Wei and the Qi level is relatively easy: if the patient suffers from aversion to cold, he or she is still at the Wei level; if he or she does not suffer from aversion to cold but, on the contrary, from aversion to heat, the patient is at the Qi level.

Thus, influenza will always start with manifestations similar to the Wei-Qi level of the 4 Levels. If the pathogenic factor is not expelled at the beginning stages, it will penetrate into the Interior and thus become Interior Heat.

Once the pathogenic factor penetrates into the Interior, the body’s Qi carries on its fight against it in the Interior: this causes a high fever and a feeling of heat, in marked contrast to the aversion to cold and the shivering which occur when the body's Qi fights the pathogenic factor on the Exterior. At the exterior level, the internal organs are not affected and it is only the Lung's Wei-Qi portion which is involved. When the pathogenic factor becomes interior, the organs are affected and especially the Lungs and/or Stomach (see below).

This stage of development in the pathology of these diseases is crucial as, if the pathogenic factor is not cleared, it may either penetrate more deeply and cause serious problems (at the Ying-Qi or Blood Level) or give rise to residual Heat which is often the cause of chronic post-viral fatigue syndromes.
In the Interior, the main patterns appearing will be one of the Qi-Level patterns within the 4 Levels. In general, at the Qi Level, either the Stomach or Lung or both are affected.

TREATMENT WITH THREE TREASURES REMEDIES

EXPEL WIND-HEAT

Invasions of Wind-Heat manifest with aversion to cold, fever, thirst, sore throat, body aches, headache, tonsillitis, ear infection, cough, Floating-Rapid pulse and tongue red on the sides. The dosage is at least 9 tablets a day. This is the remedy of choice for influenza: use 12 tablets a day. *Expel Wind-Heat* should be a stand-by remedy in any household with children.

Please note that this remedy is used only in the beginning stages when the external Wind is still on the Exterior: at this time, the patient will have 'aversion to cold' as described above.

Acupuncture


CLEAR METAL

*Clear Metal* was formulated to treat the Qi Level of influenza. The simplest and clearest sign that the invasion of Wind has moved from the Exterior (Wei Level) to the Interior (Qi Level) is that the patient feels no longer cold and does not shiver but feels instead hot and thirsty. The most common patterns at this level are either Lung-Heat of Lung-Phlegm-Heat so that the patient develops bronchitis or pneumonia.

*Clear Metal* was formulated to treat primarily Lung-Heat at the Qi Level when the patient displays the following symptoms: cough, slight breathlessness, fever, feeling of heat, thirst, tightness of the chest and upper back. *Clear Metal* has also a strong anti-viral action.

The dosage for an adult is at least 9 tablets per day. This dose can be exceeded in severe cases.

Acupuncture

LU-7 Lieque, LU-10 Yuji, Du-14 Dazhui, L.I.-11 Quchi, LU-5 Chize, BL-13 Feishu, LU-1 Zhongfu.

RINGING METAL

*Ringing Metal*, a variation of Qing Qi Hua Tan Tang *Clearing Qi and Resolving Phlegm Decoction* can be used for acute chest infections following an invasion of Wind, i.e. when the pathogenic factor is Phlegm-Heat in the Lungs at the Qi level. The main manifestations calling for this remedy in this context are: a cough following a cold or flu, expectoration of profuse sticky-yellow sputum, slight breathlessness, a feeling of oppression of the chest, possibly fever, thirst, disturbed sleep, a Full-Slippery pulse, a red tongue with sticky-yellow coating. The dosage is at least 9 tablets per day.

Acupuncture

LU-7 Lieque, LU-10 Yuji, Du-14 Dazhui, L.I.-11 Quchi, LU-5 Chize, BL-13 Feishu, LU-1 Zhongfu, Ren-12 Zhongwan, Ren-9 Shuifen, ST-40 Fenglong.

HERBAL SENTINEL
Herbal Sentinel is the remedy to take for prevention. It strengthens immunity and resistance to viruses and bacteria by tonifying Lung- and Kidney-Qi. It is to be taken continuously as long as the swine flu epidemic continues in dosages of 4 tablets a day (for an adult).

There are two Herbal Sentinel remedies: Herbal Sentinel - Yang and Herbal Sentinel - Yin. The former is for people with a tendency to Yang deficiency (with a Pale tongue); the latter for people with a tendency to Yin deficiency (with a tongue lacking in coating completely or partially).

Acupuncture

LU-7 Lieque, LU-9 Taiyuan, BL-13 Feishu, Du-12 Shenzhu, Ren-12 Zhongwan, Ren-4 Guanyuan, KI-3 Taixi, BL-23 Shenshu.

Endnotes

1. World Health Organization website, July 2009,

2. Ibid.