# Lurking pathogens three modern approaches

In a previous issue of *The Lantern* we presented a pre-modern case record detailing the treatment of a lurking pathogen (伏邪 fú xié). That case illustrated a number of the issues associated with the notion of lurking pathogens. Foremost it raised the question of what defines a lurking pathogen in clinical practice and when it is meaningful to use this concept. In this two-part article we will present three case records by different clinicians representing different perspectives on the modern application of lurking pathogens.

### By Charles Chace, Jason Blalack and Jack Schaefer

LTHOUGH THERE ARE MANY WAYS TO Adefine lurking pathogens, all three of us find it most useful to define the term in the following ways. 1) Lurking pathogens often involve dormancy; 2) They express themselves from the inside out; 3) They must be treated in a sequential manner, meaning that the pathogenic factor is moved from one layer to another in a step by step process; 4) At the conclusion of treatment the original problem no longer exists due to the complete expulsion of the pathogen from the

The classical notion of a lurking pathogen originates in chapter three of the Basic Questions (素問 Sù Wèn) which states: "If the body is attacked by cold in winter, the person will suffer from a warm disease in the spring." 1 By the Qing Dynasty this idea of a seasonal lurking pathogen had evolved

into the disease categories of spring-warmth and lurking summer-heat disease. More recently it has been used to refer to any pathogenic factor that is contracted some time in the past, with or without presenting symptoms, and subsequently lies dormant for an indeterminate period prior to its active expression.

The Chinese medical literature also commonly - but confusingly - defines a lurking pathogen simply as any pathogenic factor that persists or becomes intractable. The case records of many eminent physicians purporting to treat lurking pathogens often reflect a single fixed zang fu pattern that is indistinguishable from routine TCM treatment strategies. We find it unhelpful to label such clinical presentations as lurking pathogens. For instance, such a label really adds nothing to our understanding of a phlegm-heat pattern that has persisted for five weeks, and is then successfully resolved by simply treating phlegm heat. As important and legitimate as such cases may be, there are other approaches to lurking pathogens that concern themselves primarily with the progression of a disease and its treatment. Therefore, our use of the term "lurking pathogen" fundamentally emphasises its mobile and dynamic character.

This idea is exemplified by Wáng Mèng-Yīng's (王孟英) statement that "lurking warm disease progresses by moving from the interior to the exterior".2 Above and beyond the etiology or nature of the pathogen, a propensity toward exteriorisation is what we think is important as a defining characteristic of lurking pathogens. Unfortunately, not all lurking pathogens exteriorise on their own, and in fact, the most intractable do not. Ac-

<sup>1</sup> Basic Questions, p. 46

cording to Liù Bǎo-Yí (柳宝诒): "Pathologically speaking, it is a good sign when a lurking heat pathogen comes out from the interior to the exterior, and it is a bad sign when it remains in the interior and cannot reach the exterior."3 Therefore, if we limit our use of lurking pathogen treatment strategies to those pathodynamics that spontaneously exteriorise then we will inevitably miss treatment opportunities.

In terms of how it is treated, the distinguishing characteristic of a lurking pathogen is that it is evicted through multiple layers in a sequential manner. Discussions of the treatment of lurking pathogens in the pre-modern literature speak of working through layers in the process of removing them. It is typically a stepped process. For example, one of the lengthier cases used by Liu Bao-Yí to illustrate his approach to lurking pathogens contains the comment:

If one hopes to get to the root of disease one must carefully attend to the details. Lurking warm pathogens such as this have many layers. After resolution and a cessation [of symptoms over the course of one to two days, one may proceed to evict the next layer. Moreover, the pathogen of subsequent layers will invariably be worse than the first. (Blalack & Chace, p. 31-37).

A sequentially stepped strategy focuses on the overall progression of the therapeutic influence over time, even as it carefully attends to the nature and location of the pathogenic factor in a given moment.

However, it is difficult to capture the intricacies of such a dynamic approach to treatment in a text-book format of abstract theory. This is one reason why the study of case records is so important. They provide a window into the real-life complexities of lurking pathogens. The study of both case studies and textbook discussions deepens one's understanding of this difficult topic and helps clarify when a lurking pathogen label and treatment are actually of value.

# Case 1: Charles Chace

Despite the absence of a clear period of dormancy the following case can profitably be viewed as a lurking pathogen because of its clearly demarcated sequential treatment strategy and because symptoms (such as those my patient experienced) subsequent to antibiotic therapy are often discussed in terms of lurking pathogens.4 As Liu Guo-Hui remarks, antibiotic therapy, while "killing" bacteria, typically leaves residual debris within the body that often creates further disruption; Chinese medicine on the other hand ensures that the pathogen is fully eliminated. In this case history, the patient's situation if left untreated would likely have developed into something much more identifiable as a "dormant" pathogen. It is simply better medicine to treat any imbalance before it becomes entrenched, and lurking pathogens are no exception. It is also much easier to distinguish the pathogen from the background condition in the early stages of a disease process.

This raises another issue pertaining to our understanding of lurking pathogens. As simple as the pathodynamics may appear, the etiology of this case is still relatively messy and as such, it is representative of the cases most of us see in clinic every day. My patient had also done a number of other therapies along the way that could well have made her worse. In truth, it is difficult to say exactly where the lurking heat came from. This in fact is one of the central points of the case. I believe that etiological ambiguity such as this is such a common scenario in clinical practice that efforts to identify the pathogen caused by a specific pharmacological or biomedical entity are often a waste of time. We end up agonising over whether the lurking pathogen is the result of the antibiotic the patient just took, the homeopathic they were administered before that, or the vaccination they received when they were two years old. In clinical practice, all that is really necessary is that we frame whatever pathogen complex we observe at the time in a Chinese medical context, such as heat, damp heat, cold, etc. This allows us to treat the condition with the tools we have.

While the case could have been approached in a variety of very different (and possibly more skilful) ways, the management given in the event caused the pathogen to move from the interior outward in an unambiguous progression. We saw a pathogen that had penetrated deep into a patient wend its way back outward, triggering old symptoms in a manner that looked remarkably like Herring's law of cure.5

A close colleague of mine had been going through a period of great emotional upheaval that culminated in symptoms of palpitations, tightness in her chest and poor sleep. She had taken a homeopathic preparation called "CoroCalm" that resulted in virtually instant relief of all of her symptoms. However, within a few days of taking this preparation she developed a severe urinary tract infection with obvious hematuria. It was her impression that there had been heat in her Heart and the homeopathic had vented the heat to her Small Intestine and on into her Urinary Bladder. She then took *Bā Zhèng Sǎn* (Eight-Herb Powder for Rectification) and a homeopathic vaginal sup-

■ Charles Chace has been a student of Chinese medicine and its literature for over 25 years. He graduated from the New England School of Acupuncture in 1984. He is the author and translator of a variety of books and maintains a clinic in Boulder, Colorado.

Jason Blalack maintains a private practice in Boulder, Colorado. Questions or comments can be sent to: iblalack@chinesemedicinedoc.com

<sup>3</sup> Liŭ Bǎo-Yí, 1900

<sup>4</sup> See for instance, Liu Guo-Hui, Warm Diseases, A Clinical Guide, Seattle, Eastland Press, 2001; preface xiii --xiv.

<sup>5</sup> A homeopathic theorem that basically states: a disease will resolve from within outward, and in reverse chronological order.



# SUN TEN CHINESE MEDICINE PEARLS

PRESENTED BY PROFESSOR LI PEI WEN OF SINO-JAPANESE FRIENDSHIP HOSPITAL. BEIJING. CHINA

Professor Li Pei Wen is one of China's leading Oncologists in Chinese Medicine. He has more than 35 years of clinical and research experience in the prevention and treatment of cancer by using integrated Western and Chinese Medicine. From 1981 to 1984, he worked in the Oncology Department of Guang An Men Hospital in Beijing. Since 1984, he has worked as the Chief Physician and Director of the TCM Oncology Department at the Sino-Japanese Friendship Hospital, Beijing. Professor Li is the Vice-Chairman of the Chinese Association of Oncology in Integrated Chinese and Western Medicine.

## ABOUT THE PRESENTATION

#### Seminar Topic:

- Chinese Medicine in the management of cancer and associated pain.
  - The role of Chinese Medicine in dealing with the side-effects of cancer treatment such as chemotherapy and radiotherapy.
    - Chinese Medicine treatment of breast cancer.

#### Day One

- Chinese Medicine in the management of cancer and associated pain.
  - Chinese Medicine treatment of breast cancer.
  - The role of Chinese Medicine in dealing with the side-effects of cancer

This one and half day seminar will be delivered by Professor Li Pei Wen and interpreted by Dr. Greta Young Jie De.

# DATES AND VENUES

Melbourne - Co -hosted by University of RMIT

Day One: Saturday 14th July 2007 1 pm - 5pm (afternoon tea provided).

Day Two: Sunday 15th July 2007 10 am - 5pm (afternoon tea provided).

Venue: RMIT University, Casey Plaza Lecture Theatre Building 10, 124 Latrobe Street, Melbourne. Contact: Greta Young on (03) 9842 0253

Sydney - Co-hosted by University of Technology, Sydney Day One: Saturday 21st July 2007 1 pm - 5pm (afternoon tea

provided). Day Two: Sunday 22<sup>nd</sup> July 2007 10 am - 5pm (afternoon tea provided).

Venue: University of Technology, Sydney. Contact: Bob Hayes on (02) 9514 2500

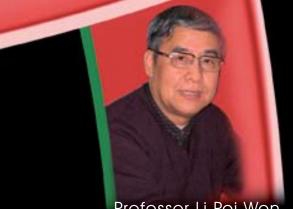
Brisbane - Co-hosted by Health World Limited distributor of Sun Ten **Products** 

(One day seminar only)

Topics include: Chinese Medicine treatment of breast cancer and the role of Chinese Medicine in dealing with the side-effects of cancer treatment.Wednesday 18th July

Registration from 9:30am - 10:00am Seminar runs from 10:00am - 5:00pm

Lunch will be served from 12:00pm - 1:00pm Venue: Holiday Inn, Roma Street, Brisbane. Contact Health World Limited on 1800 777 648



Professor Li Pei Wen

Melbourne and Sydney 10 AACMA CPE Points Allocated. Brisbane 5.5 AACMA CPE Points Allocated. FCMA points also available.

We expect that the venues will be fully booked - please book early to avoid disappointment. No tape recorders or video cameras allowed. Heath World Limited reserves the right to refuse entry to any person, or competitor, or employee thereof.

pository that initially seemed to hold the symptoms at bay. However, the hematuria persisted. She finally resorted to a sulfa drug when she felt the pain moving further into her pelvis and radiating up her back. Her initial response to the antibiotic was so violent that she was convinced she was going to die, but by the fifth day of this regimen her urinary symptoms had largely abated. Nevertheless, she still felt terrible, was profoundly exhausted and nauseated. At this point she asked me to prescribe for her.

First visit: Her tongue was dry and red, with slightly raised red papillae and her pulse was wiry and strong. She had extremely cold hands and feet and a bad taste in her mouth. She complained of being "very mucousy," was averse to drinking water, and still had some slight urinary burning.

My diagnosis was constrained heat in the shao yang complicated by remnant phlegm and damp. I gave her the following formula:

Qīng Hāo\* 9g (Artemisiae annuae Herba) Huáng Qín 6g (Scutellariae Radix) Dăng Shēn 6g (Codonopsis Radix) Gān Cǎo 6g (Glycyrrhizae Radix) Shēng Jiāng 3g (Zingiberis Thizoma recens) Zé Xiè 6g (Alismatis Rhizoma) Zhú Yè 9g (Lophateri Herba) Zhú Rú 9g (Bambusae Caulis in taeniam) Pèi Lán 9g (Eupatorii Herba) \*added in the last 10 minutes.

Given my diagnosis, Xiǎo Chái Hú Tāng (Minor Bupleurum Decoction) might have been an obvious possibility as a base prescription. However, it was clear to me that administering Chái Hú as a sovereign medicinal would have been much too harsh and upbearing for my colleague, as she had a history of vertigo and a long history of sensitivity to medications of all sorts. I needed something that would vent the pathogen from the shao yang/qi aspect with a softer touch. Hao Qìn Qīng Dān Tāng (Artemesia Annua and Scutellaria Decoction to Clear the Gallbladder)6 was another possibility that actually addressed the moist heat in her condition more closely; however the vigorous diuretic component that characterises this prescription seemed heavy handed so I settled on a hybrid.

I am quite fond of Qīng Hāo. According to Wáng Tian-Rú (王天如), a well-known contemporary warm-disease expert:

Qīng Hāo is bitter, slightly acrid, and cold in nature. Its qi is light and it is aromatic. Qīng Hāo is typically used to abate bone-steaming fevers and to

6 See The Lantern Vol. 3:2 pp. 13-14 for an in-depth discussion of this formula.

clear externally contracted summerheat dampness and repletion heat. It enters the Spleen, Stomach, Liver, Heart and Kidneys. Qing Hao is bitter but does not damage the yin; it is cold but does not create dampness, It is acrid and transforms turbidity. It is light and clearing and evicts pathogens. Its three major functions are in draining heat, rectifying taxation, and resolving summerheat. It can be used for warm disease pathogens on any level; the defense, the qi, construction or blood aspects. It can be used as a sovereign or assistant medicinal depending on how it is combined with other medicinals.<sup>7</sup>

Given the weakened condition of my patient, and the presence of both heat and dampness, Qīng Hāo seemed to be a good call. However, in my experience, it is only effective in evicting pathogens when decocted for 10 minutes or less.

Of the several pathogens, heat, phlegm and damp, it is interesting to consider how much dampness was actually present. My colleague complained of being very "mucousy," reflecting phlegm with form. She also reported a frank aversion to fluids, although her tongue was quite dry. This I interpreted as dampness constraining the waterways, providing an opportunity to drain some more heat along with this dampness while still protecting her fluids with the herbs Zhú Yè, Zhú Rú, and Pèi Lán (although in retrospect, the Pèi Lán could probably have been deleted). Since this was predominantly a qi aspect problem, and my colleague still had some heat in her urinary tract, I mildly vented heat through diuresis with Zé Xiè rather than hitting it harder with the Green Jade Powder (碧玉散 Bì Yù Sǎn).

She decocted one packet of herbs in six cups of water, simmered down to three cups, and took one cup three times daily.

Next visit: My colleague felt remarkably better after the taking her first cup of the medication. The following morning she reported that the coldness in her extremities had disappeared, as had her urinary burning and the bad taste in her mouth. Her thirst was now normal. She nevertheless woke feeling exhausted and asthmatic, an old symptom for her. Based on pure intuition, she took a dose of Shēng Mái Sǎn (Generate the Pulse Powder), which provided significant, if short-lived relief. Her chest was tight and she was having difficulty breathing. She reported that her face felt as if it was vibrating and she had a slight nasal drip. Her tongue was slightly less red with red papillae, and the moisture had returned. Her pulse was rapid and replete. She did not feel great, but she was certainly better than the day before.

My sense was that we had vented the heat from the shao yang to the qi aspect of the Lung and

Ante Babic's Tips for running a successful clinic ...

When I'm down, I often recall my grandfather's definition of happiness:

Warm feet,

Cool head, Full stomach

And light heart.

<sup>7</sup> Wáng Tian-Rú, p. 146-147.

that it was already moving on to the exterior. I considered giving her Má Xìng Shí Găn Tāng (Ephedra, Apricot Seed, Gysum and Licorice Decoction) to clear the constrained heat from her chest, however, knowing that this patient tended toward hypersensitive responses to Má Huáng and without a vigorous out-thrusting influence like Má Huáng to balance it out, I was concerned that the Shí Gāo would just constrain the heat further.8 Instead, I took a milder approach that better reflected my patient's constitution.

Sāng Bái Pí 15g (Mori Cortex) Dì Gǔ Pí 15g (Lycii Cortex)

Zhī Mŭ 12g (Anemarrhenae Rhizoma)

Rén Shēn 9g (Ginseng Radix)

Xìng Rén 12g (Armeniciacae Semen Amarum) Dàn Dòu Chǐ\* 6g (Sojae Semen preparatum) 9g (Schizonepetae Herba) Jīng Jiè

\*added in the last seven minutes.

One packet of herbs was decocted in six cups of water, simmered down to three cups, with a cup taken three times per day.

Since a tight chest and shortness of breath are reliable indicators of some sort of constraint, it is reasonable to wonder why I did not employ more gi movers in this prescription. As alluded to above, many strong, cold heat-clearing medicinals such as Huáng Qín and Huáng Lián do nothing to actually move the qi and, if not paired with qi-moving components, will often constrain it further leaving one to wonder why the double digit doses are not working. In this case, however, there was already a propensity for movement. There were signs of constraint, of course, but the gi was already pushing toward the exterior. My inclination was to simply make sure the door was open with a gentle, slightly warm, acrid, and outthrusting pairing of Dàn Dòu Chǐ and Jīng Jié. In my first prescription I utilised two vectors for draining heat, venting outward while transforming dampness with aromatic herbs like Qīng Hāo and Pèi Lán, and draining downward through the urination with Zé Xiè.

By now the waterways had normalised and things were moving so I decided to leave well enough alone and to continue to vent heat exclusively through the exterior.

By and large, warm disease theory takes a dim view of supplementation too early in the course of treatment, before a pathogen has been fully expelled. I, too, believe that using supplementation to push out a heat pathogen often does not work very well. How then could I justify my use of Rén Shēn? It was the good response my colleague obtained from her experiment with Shēng Mài Săn that morning. Although she was clearly very run down, it occurred to me that perhaps the benefit she got from taking Shēng Mài Sǎn was more on the level of the fluids. Rén Shēn is used in the Shang Han Lun for protecting the fluids as well as boosting the qi.

Third visit: Again, she immediately improved after the first dose and the following morning she reported that she felt had nearly recovered. She was feeling cold again, and her nose was runny, although she still had some sense of dryness and tightness. Her tongue was definitely still on the red side, but her pulse was floating and relaxed, suggesting that the pathogen could finally be expelled through the exterior.

The use of Guì Zhī Tāng (Cinnamon Twig Decoction) to treat early stage warm disease is hotly debated in the warm disease literature but the general consensus is that this is a bad idea. Keeping this in mind, I still used Guì Zhī Hòu Pò Tāng (Cinnamon Twig and Magnolia Bark Decoction) as my base formula for the following reasons. First, with the exception of her tongue, my colleague's symptoms fit the Guì Zhī presentation.9 Then too, she had often taken Guì Zhī Tāng in the past with great success in treating wind cold conditions. She was very lean, and sensitive which was consistent with a Guì Zhī type constitution. Finally, I am of the opinion that even if a wind cold pathogen transforms to heat early in a disease process, it may be useful to address that pathogen as wind cold somewhere in the course of treatment. Such an opportunity had presented itself.

Guì Zhī 9g (Cinnamomi Ramulus) Jíng Jiè 9g (Schizonepetae Herba) Bái Sháo 4g (Paeoniae Radix alba) Dá Zǎo 6g (Jujubae Fructus) Gān Cǎo 9g (Glycyrrhizae Radix) Hòu Pò 12g (Magnoliae officinalis Cortex) Xìng Rén 12g (Armeniciacae Semen Amarum) Rén Shēn 6g (Ginseng Radix)

As the Rén Shēn seemed to be facilitating the ultimate resolution of the problem it was left in the



Given the weakened condition of my patient, and the presence of both heat and dampness, Qīng Hāo seemed to be a good call. However, in my experience, it is only effective in evicting pathogens when decocted for 10 minutes or less.

<sup>8</sup> Most textbooks attribute pathogen-evicting properties to Shí Gāo. This property is naturally contingent on its proper administration and there are many instances in the case history literature where the reckless administration of Shí Gāo appears to have locked in pathogenic factors. See, for instance, my essay, Bitter Realities, Applying Wenbing Principles in Acute Respiratory Tract Infections, Journal of Chinese Medicine, #63, June 2000, pg: 12-17. This is a mistake I have made myself on more than one occasion. For this reason, I now tend to avoid the use of Má Xìng Shí Gan Tang in general and Shí Gāo in particular unless the patient's presentation is completely unambiguous. When the presentation is correct, however, this formula is remarkably effective.

See Classical Corner in this issue for a discussion of Huang Huang's theory of typical "presentations."

prescription. Hòu Pò is an obvious modification of Guì Zhī Tāng for opening the chest, however, it may be that if I had moved the qi in the chest just a bit more in the previous formula I would not have needed it now. By the next day, she felt fine. On her own initiative, my colleague resumed taking Shēng Mài Săn, which appears to have been a fruitful decision.

A good rule of thumb to follow when reading case histories is not to ask yourself why the physician failed to treat their patient they way you would have, but instead to try to understand why he or she did what they did. Again, looking at our own cases in detail can force us to articulate decisions that are often almost unconscious. It is all too easy to say "look how clever I was in solving this conundrum" instead of challenging oneself and asking: "how might I have done it better?"

What would have happened had I taken a more vigorous approach in my first prescription, including a stronger diuretic and down-bearing component inherent in the original version of Hao Qìn Qīng Dān Tang? Might I then have vented the lurking heat in a single stroke? Perhaps; some of Yè Tian-Shi's (葉天士) case histories seem to indicate that he achieved resolution of a lurking pathogen with the administration of a single treatment strategy.<sup>10</sup> On the other hand, might a more aggressive treatment strategy have further debilitated an already weakened patient? I think that this could have been equally likely. My justification for using the conservative approach is my previous experience in treating this patient.

Could this case have been treated using established zang-fu theory? Perhaps, but through the lens of a TCM zang-fu diagnosis we are left with three static pictures, frozen in time. Precise these polaroids may be, but we lose a real sense of the flow between these pictures, and from my perspective, this is essential to truly understanding what is going on in this case. It is the capacity to see the flow, predict its course, and prescribe with an eye on the future, as opposed to only reacting to the past. You can simply grab the tiger's tail and hold on, or you can be prepared to whack it on the head when it turns around to bite you.

#### Case 2: Jason Blalack

The following case demonstrates a fairly unusual progression of a long-standing pathogen. After some provoking, it erupted and finally culminated in a presentation that was reminiscent of the pathogen that had entered 17 years prior. Although the course of this case is consistent with the theoretical resolution of lurking pathogens, in that it exited the body in a manner similar to its entry, such progressions are more an exception than the rule. Moreover, the progression here was characterised by many twists and turns illustrating some interesting aspects of dealing with lurking pathogens.

In terms of my actual treatment, I had the opportunity to use a number of medicinal combinations and therapeutic strategies that are known to be particularly effective in evicting lurking pathogens. Of greater importance to me, however, as discussed in the introduction, was that a lurking pathogen framework encouraged me to consider the disease as a dynamic progression rather than a series of static diagnostic snapshots. Making note of where a pathogen has been and where it is going not only gives us clinical clues for treatment, but helps instill confidence in our patients in so far as we can explain the past, present and future course of disease.

This dynamic view is especially useful in longterm problems caused by lingering pathogens residing in the deeper layers of the body. The chronic everyday presentation of a lurking pathogen is often relatively mild compared to its expression when it becomes activated, or as it is being evicted. For example, during treatment the eviction of a pathogen outward from the construction level to the gi level often produces stronger symptoms, such as high fever, constipation, and profuse sweating. In the following case the lurking pathogen did indeed erupt quite violently. Fortunately I had prepared the patient for this possibility.

The case: Malaria-like syndrome due to a lurking pathogen. For 17 years a 37-year-old female had suffered from afternoon fevers which were especially severe in the autumn. Every day around 4pm she would experience a sense of generalised feverishness that was particularly prominent in her head and felt flu-like, with muscle soreness focused particularly in her neck and shoulders, extreme fatigue, and the need to lie down. All of these symptoms would resolve around 11pm when she would go to bed feeling cold, only to wake up hot in the middle of the night. Seventeen years prior, she had fallen ill in Central America and consequently took a course of the antiprotozoal and antibacterial drug Flagyl. In describing her situation, she mentioned that she had "never been the same since."

At her initial consultation she presented with thirst, night sweats with a sensation of warmth, poor appetite and "weak digestion", although she usually was able to eat when presented with food. She had a tendency towards dry stool constipation, propensity towards anger, and felt a need to cry but could not. She complained of sinus congestion with thick yellow and slightly blood

<sup>10</sup> This, of course, calls into question a major premise of this paper, ie. that the lurking pathogen paradigm is best used when eviction of a pathogen will require a sequence of deliberate steps. On the other hand, Ye also has many cases where a sequenced strategy was required.

tinged mucous, burning red eyes, swollen glands and throat, an ongoing tight and sore throat, enlarged thyroid, and tinnitus. The soles of feet were dry and very hot and she had a high sex drive. She would develop vaginal yeast infections eight times a year, during which she would complain of burning, itching and yellow vaginal discharge.

Physical examination revealed a slippery and slightly rapid (84 bpm) pulse. The underside of her tongue had many distended purple veins. She had swollen glands in the throat.

Diagnosis: This was a concurrent shao yang and yang ming disorder. I prescribed modified Dà Chái Hú Tāng (Major Bupleurum Decoction).

Chái Hú 6g (Bupleuri Radix) Huáng Qín 10g (Scutellariae Radix) Tiān Hūa Fěn 10g (Trichosanthis Radix) Dăng Shēn 10g (Codonopsis Radix) Bái Zhú 10g (Atractylodis macrocephalae) Zhú Rú 10g (Bambusae Caulis in taeniam) Zhí Shí 10g (Aurantii Fructus immaturus) Dà Huáng 6g (Rhei Radix et Rhizoma) Jú Huā 6g (Chrysanthemi Flos) Gān Cǎo 6g (Glycyrrhizae Radix) Chén Pí 6g (Citri reticulatae Pericarpium)

Two packets were given to be taken over four days.

Analysis: Although this presentation is not a typical Dà Chái Hú Tāng (Major Bupleurum Decoction) pattern, my decision was straightforward. With the chief complaint of cyclic alternating fever and chills11, Xiǎo Chái Hú Tāng (Minor Bupleurum Decoction) is an obvious choice. There were, however, other options that I had to rule out. For example, alternating fever and chills can also occur in warm disease (wēn bìng) patterns like constraint of the Triple Warmer or even damp-heat attacking the membrane source. These diagnoses are tempting due to the secondary concurrent damp and phlegm signs such as yellow mucous, frequent yellow vaginal discharge, swollen glands, and a slippery pulse as well as a weakened digestive system. With the patient not exhibiting a definitively identifiable pattern for any of them, my decision was made because of the relatively clear shao yang and yang ming elements, her livery constitution (wiry frame and anxious nature), and my comfort with the Chái Hú paradigm.

Furthermore, it was also clear that there was excess heat in the body that had to be eliminated. Since she was constipated, it was a natural choice to center my prescription around Dà Chái Hú Tāng (Major Bupleurum Decoction). Instead of trying to account for every sign and symptom or potentially overly prescribe bitter cold medicinals to quell the heat, I took these few basic observations and focused on the pathomechanism that I saw fit. The pathomechanism for this formula is internally depressed shao yang ministerial fire inhibiting the shao yang pivot mechanism, and resulting in yang míng yáng organ excess.12 Supporting this view, Wú Qian comments that tidal fever is mistakenly left out of the original description of the signs and symptoms for Dà Chái Hú Tāng (Major Bupleurum Decoction).13 Essentially the plan was to open up the pivot and expel the pathogen.

Line 96 of the Shāng Hán Lùn recommends the removal of Bàn Xià from Xiǎo Chái Hú Tāng (Minor Bupleurum Decoction) and the addition of Tiān Huā Fěn if there is thirst. Zhú Rú enters the Gallbladder and Stomach to clear heat, calm the spirit, release constraint, and alleviate irritability. With Chén Pí and Bái Zhú it helps strengthen and harmonise the Stomach and eliminate damp and phlegm. Jú Huā lightly vents the pathogen and cools heat. The Bái Sháo originally in Dà Chái Hú Tāng (Major Bupleurum Decoction) was excluded from my prescription as the patient had no abdominal pain and distention.

Phone consult (four days later): After two packets, her fevers and sinus congestion were slightly aggravated and there was no change in her thirst and burning eyes. The patient also described "white goopy stuff" in the corners of the eyes. She did however feel some movement in her abdomen, and she reported a sense that her core energy was recovering. Although there was no significant improvement in her chief complaints, there also were no major side-effects, so I decided to stay the course with only slight modifications. With little effect on the heat I decided to tonify less and clear more.

I therefore increased the dose of Dà Huáng to 10g, Jú Hūa to 10g, added Zhī Zǐ 6g, and subtracted Dăng Shēn. I also gave her an additional 20 grams of Jú Huā to make as a daytime tea to drink. My intention was to more effectively move her stool, clear more heat, and soothe her eyes. She took two more packets of herbs over the course of four days.

Visit 2 (four days later): She reported that for three days her fevers were completely gone and though the fevers had now returned they were less intense. She had an increase in core energy and was feeling "lighter". Both her nocturnal heat and night sweats had abated. Her eyes were 60-70 per cent better, and her sinuses were relatively



Alternating fever and chills can also occur in warm disease (wēn bìng) patterns *like constraint of the Triple* Warmer or even damp-heat attacking the membrane source.

<sup>11</sup> Huáng Huáng (1998), a modern expert in Shāng Hán Lùn, refers to this cyclic concept as meaning symptoms that appear at certain time or with a certain regularity. This type of presentation as well as sensations of heat then cold are key indications for the use of Chái Hú, as well as Xiāo Chái Hú Tāng.

<sup>12</sup> As described by Deng (et al.), in a commentary on the Essentials of the Golden Cabinet (Jīn Guì Yào Lūè).

<sup>13</sup> Shāng Hán Lùn Chapter 10, Paragraph 12.



However, in this situation, it is unclear if the lurking pathogen was venting all the way up to the exterior or was erupting in the interior while an additional pathogen was simultaneously attacking the exterior.

clear. She began to pass soft orange-brown stools with a foul smell five to seven times a day accompanied by lots of gas.

Despite the rapid improvement of her symptoms the patient urged me to pursue a treatment based on an article she read on the internet. We both suspected that she had contracted malaria 17 years prior. Subsequently she found research on treating post-malarial disease with high doses of the single medicinal Qīng Hāo, and insisted that this form a major part of her treatment. Despite my reluctance, I eventually went along with this, incorporating a 40g dose of Qīng Hāo into a herbal prescription for her, and although there was a brief (two-day) improvement in her symptoms, the overall effect was a downturn, and for 17 days we worked on bringing her back to a place from which some serious work could be accomplished regarding her long term pathogenic influence.14

During this time I made the decision to stick with the fundamental *Xiǎo Chái Hú Tāng* (Minor Bupleurum Decoction) strategy. This was due to my belief of where I thought the pathogen was residing and a familiarity with the strategy I thought would evict it. Even though the other medicinals around this core concept changed, it kept a focus to the treatment and a consistent pressure on the pathomechanism I felt was behind the patient's condition.

After 17 days of delicate work around the basis of Xiǎo Chái Hú Tāng (Minor Bupleurum Decoction, she had finally stabilised again to some extent, although she had been put on nightshift and was finding it hard to adjust. Four days after a consultation, she telephoned. She still suffered from afternoon fevers that felt flu-like (sore throat, blocked sinuses, trouble breathing) and was very weak and exhausted - she said she just wanted to lie down. This exhaustion was exacerbated by a recent change to nightshift, which she found frustrating. Her appetite varied, her bowels were irregular (varying between dry and loose stool), and her eyes were burning. At the previous faceto-face consultation her tongue had been short and scalloped with a clear dip in the back as well as the centre front, and her pulse had been rapid (92 bpm), with the right pulse deficient and deep and the left pulse deep, tight and slightly wiry.

I gave her the following prescription:

Huáng Qín 10g (Scutellariae Radix) Chái Hú 10g (Bupleuri Radix) Tiān Hūa Fěn 10g (Trichosanthis Radix)

Dăng Shēn 12g (Codonopsis Radix) Zhī Zĭ 6g (Gardeniae Fructus) Shēng Dì 6g (Rehmanniae Radix) Dāng Gūi 6g (Angelicae sinensis Radix) Dà Huáng 8g (Rhei Radix et Rhizoma) Iú Huā 10g (Chrysanthemi Flos) Sāng Yè 10g (Mori Folium) Chén Pí 6g (Citri reticulatae Pericarpium)

Gān Cǎo 6g (Glycyrrhizae Radix)

Analysis: In this prescription the light cooling Sāng Yè and Jú Huā were not meant to release the exterior, but to provide an ascending avenue outward for the entrenched pathogen, which furthermore balances the non-diffusing straightforward heat clearing action of Huáng Qín, Shēng Di, and  $Zh\bar{i}$  Zi, both of which also cool the blood. I also increased the Chái Hú which with its clear and light and ascending nature "excels at forcing a pathogen at the half-exterior level of the lesser yang out to the exterior where it can be dispersed" (Bensky, p. 76). Huáng Qín cools the Liver and Gallbladder at the qi level and internally helps to resolve the pathogen located half in the interior. They work together to eliminate the pathogen.

After two packets, taken over four days, her eyes burned less, fevers improved, and her overall symptoms were 40 per cent better. But she now felt that she was "getting sick" and had occipital tightness and general achiness.

Was she just getting sick or was something else happening? This is where it finally occurred to me that a lurking pathogen was making itself known. She did not have a floating pulse nor fever and chills.

Phone consult: She checked in the next day and reported that she was very sick with simultaneous chills and fever, generalised abdominal cramps, low appetite, full body aches, diarrhea and nausea, and lots of crying. She complained of heat in her head, burning eyes, a dry mouth unquenched by water, and dry lips. However, her sinuses were open and she was no longer having trouble breathing and the soreness in her throat was gone. She felt better after bowel movements, which no longer burned but had a strong odour. When she came in to pick up her herbs, she was so weak that she could not get off the couch and had to call someone to come pick her up.

Was this a lurking pathogen or a newly acquired illness? I decided that she was in the process of evicting a lurking summer-heat damp pathogen. The key factor in my assessment was that there was no environmental influence (actually it was cold and dry out) nor was there any apparent dietary contributing factor that could explain the summerheat damp presentation. Where did this come from? This pathogen's presentation was very similar to the very hot and damp environ-

<sup>14</sup> Patients dictating treatments is an perennial dilemma in both Western and Eastern medicine. For a complete commentary on this and a play by play of what happened during this time, please see the full case study at: http://www.chinesemedicinedoc.com/index.php?page=Chinese\_Medicine\_Articles

ment she was in when she originally became ill 17 years prior. With such a sequence of events one cannot help but recall chapter three of the Sù Wèn: "Summer exposure to summerheat [if it doesn't cause immediate illness] will lead to malaria-like chills and fever in the autumn." The resemblance is particularly marked as this patient's symptoms were worse in the autumn.

Knowing her history and the likelihood that this striking presentation was related to the original pathogen, I quickly switched my treatment strategy to match her current presentation. I gave her one packet for two days of modified Xīn Jīa Xiāng Rú Yǐn (Newly Augmented Elsholzia Decoction):

Xiāng Rú 9g (Elsholtziae Herba) Iīn Yín Huā 15g (Lonicerae Flos) Bái Biān Dòu 15g (Dolichoris Lablab Semen) 10g (Talcum, powdered) Huá Shí Lián Oiáo 15g (Forsythia Fructus) Hòu Pò 10g (Magnoliae officinalis Cortex) Huò Xiāng 10g (Pogostemonis Agastaches Herba) Pèi Lán 10g (Eupatorii Herba) Hé Yè 6g (Nelumbinis Folium) Gān Cǎo 10g (Glycyrrhizae Radix) Sāng Yè 6g (Mori Folium)

Diagnosis: Erupting lurking pathogen manifesting as summerheat and dampness collecting internally, while a cold pathogen fetters the exterior, where the cold is equal to the summerheat.

This diagnosis contains two overlapping layers. There was a combination of cold on the exterior (body aches, chills and fever, and absence of sweat) and summerheat and dampness collecting in the interior (nausea, diarrhea, abdominal cramps, and low appetite). The diagnosis of heat (summerheat) was based on the symptoms of burning eyes, a dry mouth unquenched by water, and dry lips. This is in contrast to the diagnosis of the base formula Xiáng Rū Yǐn15 (Elsholtzia Decoction), which is summerheat and dampness collecting internally while a cold pathogen fetters the exterior, where there is more cold than summerheat.<sup>16</sup> Originally both of these patterns are described as occurring due to an initial attack of summerheat and dampness that is then closely followed by an external attack by cold. However, in this situation, it is unclear if the lurking pathogen was venting all the way up to the exterior or was erupting in the interior while an additional pathogen was simultaneously attacking the exterior.

The original prescription called for Bái Biān Hua, but due to its unavailability Bái Biān Dòu was substituted. Consequently I increased the dosages of Hòu Pò and Lián Qiáo. This, as Liu Guo-Hui<sup>17</sup> points out, is to prevent the pathogen from being trapped. To this base prescription 18 I added Huá Shí, Huò Xiāng, and Pèi Lán to further aid in eliminating the dampness. Hé Yè together with Jīn Yín Huā and Bái Biān Dòu is a combination taken from Qīng Luò Yīn (Clear the Collaterals Decoction) which resolves summerheat. Sāng Yè was added because of its light, dispersing, and cooling nature, which further balanced out the thermal nature of the formula, and provided some moistening to the Lungs. This prescription as a whole resolves the exterior, disperses summerheat, and transforms and drains interior dampness.

That night she experienced simultaneous vomiting and diarrhea. The next day she had fever and chills, and muscle aches and pain in her jaw and gums. She had a fever of 100.5 F. Her eyes were no longer burning and the whites were brighter. I encouraged her to continue taking this formula.

Visit 5: When she returned she reported that she had not been able to eat any solid food the whole day, and she had a sensation of warmth. Her occipital region, jaws, and gums were still sore and painful. Her thirst was less, she had no sweating, and the burning in her eyes had greatly diminished. Her eyes did indeed look clearer. Her right pulse, chi and guan (proximal and medial) positions, were deep and tight; the cun (distal) was deep and slippery and overall slightly deficient. The left cun position was floating and thin; the guan and chi were tight.

I estimated that a large percentage of the pathogen was evicted. This allowed a kind of peeling back of the onion which exposed a lurking pathogen in the shao yin<sup>19</sup>. Quite simply, clearing away one layer can expose a deeper-layered pathogen (Blalack & Chace, p. 31-37). Therefore, her current presentation had afforded us an opportunity to evict it from this deep region. This type of interesting situation was discussed by Liŭ Bǎo-Yí, who said that in some cases when the deep-lying pathogen has transformed to heat, half of it may come out through the yang channels, while the other half still may linger in the yin levels. This type of split pathogen is the result of an underlying yin deficiency, because yin may be insufficient to support yáng's warming transformation of all of the pathogen into ventable heat. A rough analogy of this might be like using coal (black, dense and pure yin) to fuel a fire (yang) that is to dry out a water-logged dungeon. As water turns to steam it is vented outward, but if the coal (yin) runs out,



I estimated that a large percentage of the pathogen was evicted. This allowed a kind of peeling back of the onion which exposed a lurking pathogen in the shao yin. Quite simply, clearing away one layer can expose a deeper-layered pathogen ...

<sup>15</sup> Xiāng Rú Yin contains Xiāng Rú, Hòu Pò, and Bái Biān

<sup>16</sup> Cf. Liu Guo-Hui Warm Disease: A Clinical Guide p. 386-389 for a further discussion.

<sup>17</sup> Ibid. p. 388

<sup>18</sup> The herbs in the original Xin Jia Xiang Rú Yin (Newly Augmented Elsholzia Decoction) are: Xiāng Rú 6g, Jīn Yín Huā 9g, Bái Biān Huā 9g, Lián Qiáo 6g, Hòu Pò 6g. 19 Shao yin essentially refers to the Kidneys.

6)

The treatment of lurking pathogens is often the most satisfying in situations like the case above where we get to see a pathogen pop back out through the exterior like a boil coming to a head. This is as close as most of us are going to get to the experience of those Filipino faith healers who reach into your stomach and pull out neoplasm, chicken entrails or both.

the fire fails, and the not-yet-evaporated water remains. Worse, some of the partially vented steam may condense again, and fall back into the dungeon. Treatment in a case like this must include nourishment of yin – replenish the coal.<sup>20</sup>

Therefore, I decided to make use of Liŭ Bǎo-Yí's combination of *Shēng Dì* and *Dàn Dòu Chǐ* to dislodge pathogens from this level.<sup>21</sup>

Shēng Dì 10g (Rehmanniae Radix) Dàn Dòu Chǐ 10g (Sojae Semen preparatum) Chái Hú 10g (Bupleuri Radix) Huáng Qín 10g (Scutellariae Radix) Tài Zǐ Shēn 10g (Pseudostellariae Radix) Jú Huā 10g (Chrysanthemi Flos) Gé Gēn 10g (Puerariae Radix) Tiān Huā Fěn 10g (Trichosanthis Radix) Gān Cǎo 10g (Glycyrrhizae Radix) Dà Zǎo 6g (Jujubae Fructus) Chén Pí 6g (Citri reticulatae Pericarpium)

Analysis: Many of these herb choices are based on previous formulas, taking into account where the pathogen had been located as well as her constitution. Note how, for example, I still employ the Xião Chái Hú Tāng (Minor Bupleurum Decoction) theme with Chái Hú and Huáng Qín. Furthermore, because the pathogen resided in the shao yin, I followed a few of Liu Bao-Yí's ideas in the treatment of lurking pathogens. He said this about Dàn Dòu Chǐ:

Dàn Dòu Chǐ is made from black soybeans, which themselves enter the Kidney channel, and is made by steaming in a pent-up container just like the pathogen itself before it begins to emerge. Because its nature and flavour is harmonious and neutral, without the drawback of strong diaphoresis or damage to the yin, it is just right for assisting the expression of a deep lying pathogen in the lesser yin.

(Bensky, 2004, p. 65)

Together *Dàn Dòu Chǐ* and *Shēng Dì* enter the yin and outthrust the evil.

I also kept in mind his adage, "In treatment of

latent warm diseases one must protect the yin fluids at every step" by adding *Tài Zǐ Shēn*, *Gé Gēn* and *Tiān Huā Fěn*.

She took one packet over two days. After a few days there were no fevers, her bowels had normalised, and she had more energy, but her eyes were again burning and she was irritable. For seven days she took no medication and then she called and checked in. I spoke to her at this time and her fevers had mildly returned, eyes were burning, but her bowels were moving. She had dry lips and thirst, and there was a sensation of heat in her neck.

I encouraged her to continue this course of treatment because the pathogen was on the defensive and was once again trying to take up residence in the deeper regions of the body. We needed to attack and drive it out before it could take hold again. I prescribed:

Shēng Dì	15g	(Rehmanniae Radix)
Dàn Dòu Chǐ	10g	(Sojae Semen preparatum)
Biē Jiǎ	15g	(Trionycis Carapax)
Qīng Hāo	6g	(Artemisiae annuae Herba) <sup>22</sup>
Chái Hú	8g	(Bupleuri Radix)
Huáng Qín	10g	(Scutellariae Radix)
Zhī Zĭ	10g	(Gardeniae Fructus)
Jú Huā	10g	(Chrysanthemi Flos)
Lián Qiáo	15g	(Forsythia Fructus)
Tài Zǐ Shǐn	10g	(Pseudostellariae Radix)
Gān Cǎo	6g	(Glycyrrhizae Radix)
Chén Pí	6g	(Citri reticulatae Pericarpium)

**Analysis**: *Biē Jiǎ* and *Qīng Hāo* is another elegant combination that Liu Bao-Yí uses for lurking pathogens that vents heat from the Kidneys. It is of course from *Qīng Hāo Biē Jiǎ Tāng* (Artemisia Annua and Soft-Shelled Turtle Shell Decoction). As Bensky and Barolet (1990) explain, "*Biē Jiǎ* directly enters the yin regions to enrich the yin and reduce the fever from deficiency... *Biē Jiǎ*... vents the heat and expels it from the body." Bensky (2004) further says, "With Trionycis Carapax (*Biē Jià*), Artemisiae annuae Herba (*Qīng Hāo*) is directed deep into the yin levels where it can rout the pathogens from the depths." *Lián Qiáo* is included to shift the pathogen up and outward.

She took four packets of herbs over eight days. I spoke to her three weeks later and she reported that her fevers had never returned and she felt well. I encouraged her to continue rebuilding the body with the following granular formula. With a follow-up phone call after another couple of months passed, I found out that she never actually took the formula because she felt no return of the symptoms.

<sup>20</sup> Clavev, 1998.

<sup>21</sup> This is similar to Liu Bao-Yi's combination of *Dàn Dòu Chǐ* and *Xuán Shēn* that is often added to *Huáng Qín Tāng* to evict pathogens from the shao yin. *Shēng Dì* acts in a similar way as *Xuán Shēn* but nourishes more yin and fluids. Although Liu Bao-Yi to my knowledge does not actually discuss *Shēng Dì* with *Dàn Dòu Chǐ* he does often use *Xiān Shéng Dì* smashed with *Dàn Dòu Chǐ* (同打) in case studies and specifically discusses them together. They are used when there is a severe lurking pathogen in the shao yin with some difficulty in the mechanism to outhrust it. He says, together they "clear the construction [level] and drain heat" as well as "diffuse and evict a lurking pathogen in the shao yin". Note: *Xiān Shéng Dì* clears more heat and generates more fluids compared to *Shēng Dì* which better generates and cools blood.

<sup>22</sup> An extracted granular form was given for this herb, because our pharmacy was out of the bulk form.

<sup>23</sup> Bensky and Barolet, p. 101.

<sup>24</sup> Bensky, Clavey, Stoger, p. 220.

Shú Dì 10g (Rehmanniae Radix preparata) Guí Băn 10g (Testudinis Plastrum) Huáng Bǎi 6g (Phellodendri Cortex) Zhī Mǔ 6g (Anemarrhenae Rhizoma) Bái Sháo 6g (Paeoniae Radix) Xiāng Fù 6g Cyperi Rhizoma) 6g (Citri reticulatae Pericarpium) Chén Pí

Gǒu Qǐ Zǐ 10g (Lycii Fructus) Shān Zhū Yú 10g (Corni Fructus) 6g (Dioscoreae Rhizoma) Shān Yào

Zhì Gān Cǎo 6g (Glycyrrhizae Radix preparata)

The treatment of lurking pathogens is often the most satisfying in situations like the case above where we get to see a pathogen pop back out through the exterior like a boil coming to a head. This is as close as most of us are going to get to the experience of those Filipino faith healers who reach into your stomach and pull out neoplasm, chicken entrails or both. In our clinical practice, at least, this is not the norm. Lurking pathogen or not, things are usually more messy than this.

Of course, this raises the question of whether we should see exterior symptoms in the course of outwardly evicting a lurking pathogen. Perhaps, if we did our job skilfully, we would drain the pathogen from the gi aspect to the exterior without triggering frank exterior symptoms. This may be another reason why many case histories that invoke a lurking pathogen diagnosis bear a remarkable similarity to ordinary garden variety warm disease cases.

We know that we have successfully vented a pathogen from the construction level to the gi level when we cease seeing construction level symptoms and begin seeing gi level symptoms. The case history source literature reflects this. Once a pathogen is established back in the qi level, we have a variety of options for finally expelling it, only one of which is through the exterior. However, more often than not, the case history source literature reflects a resolution of the pathogen from the qi level without the development of exterior symptoms.

A final question that comes to mind is whether we actually "eliminate" the lurking pathogens at all. The source literature speaks of some constitutional weakness, most often in the Kidneys, that allows for a pathogen to become lodged. While this is a neat model, real patients are messy. Over the course of a lifetime people tend to develop many predisposing imbalances and, as we have already discussed, they sustain multiple pathological assaults that are often incompletely resolved. If we are going to apply the notion of lurking pathogens to a real person with a continually evolving constitutional pattern then we have to recognise that pathogens may lurk on multiple interrelated layers. In most cases it is probably more accurate to speak of a "lurking pathogen complex" than a single pathogen.

In the first case history in this article, it is likely that what was eliminated was only the most superficial stratum of a lurking pathogen complex. In the second case history, although the complaint was eliminated, it is more than likely that there is some residual pathogen remaining that may erupt in the future. The conventional wisdom on lurking pathogens is that the course of treatment tends to be quite protracted. Lui Guo-Hui speaks of "drawing a piece of silk from a cocoon.

When pulling the thread, it almost seems as if there is no end in sight."25 In our experience, the treatment of patients with lurking pathogen complexes is often an ongoing process.

#### Conclusion to part one

Identifying biomedical disease entities characterised by periods of dormancy as lurking pathogens does not always mean that a lurking pathogen methodology is necessarily the treatment strategy of choice for these conditions. Conversely, clinical situations that may not immediately come to mind as being due to a lurking pathogen may be effectively treated using a lurking pathogen methodology. However fruitful an integrated Chinese medical/biomedical understanding may be, it is equally important to understand the concept of lurking pathogens (or any Chinese medical idea) in its richest context. In light of this, the most effective approach to lurking pathogens we have found best frames this idea primarily as a treatment methodology as opposed to an etiology.

The thumbnail sketches of ideas like lurking pathogens presented in modern Chinese medical texts are at best only referents to a much broader scope of understanding. Textbook presentations inevitably filter Chinese medical ideas in a manner that renders them static and divorces them from the flow of treatment. The case history literature is much better at illuminating this aspect of clinical practice. Finally, above and beyond simply presenting what did or did not work for a given clinician in a given situation, case histories provide a forum for the critical analysis of our thinking at every step of the therapeutic encounter.

■ Part two, appearing next issue, will present a case of lurking pathogen by Jack Schaefer.

#### Sources

Anonymous, An Annotated Huang Di's Inner Classic: Basic Questions (黄帝内經素问校釋 Huáng Dì Nèi Jīng Sù Wèn Xiào Shì). Beijing: Peoples' Health Publishing.

Bensky, D., Clavey, S., & Stoger, E. (2004). Chinese Herbal Medicine, Materia Medica (3rd edition). Seattle: Eastland Press.

Bensky, D & Barolet, R. (1990). Formulas and Strategies. Seattle: Eastland Press.

Blalack, J. & Chace, C. (2006, January). A Case Study on Lurking Pathogens from the Late Qing Dynasty. The Lantern, 3:1, pp. 31-37.

Chace, Charles (2000, June). Bitter Realities, Applying Wen Bing Principles in Acute Respiratory Tract Infections. Journal of Chinese Medicine, 63, pp. 12-17.

Clavey, S. (May, 1998). ACMERC Newsletter. Vol 3:5. More on Deep-Lying Pathogens, p. 8. Dǒng Zhèng-Huá, Yáng, & Yì (Eds.) (董正 华, 杨, 轶, 主编) (2001). Being Well Versed in the Essentials from the Golden Cabinet. (金 匮要略通解 Jīn Gūi Yào Lüè Tōng Jǐe).中国西

安: 三秦出版社. Xian: San Qin Publishing. Liǔ Bǎo-Yí (1900). Journey to the Origin of Warm-Febrile Disease (溫熱逢原 Wēn Rè Féng Yuán), in An Encyclopedia of Chinese Medicine (中華醫典 Zhōng Huá Yi Diǎn) on CD ROM 2000 Hongyu@public.cs.hn.cn

Liu's Select Case Histories From Four Currents (柳選四家医案 Liu Xuǎn Sì Jiā Yī Àn),

Běi Jīng, Zhōng Guó Zhōng Yī Yào Chū Bǎn Shè: (1997). This is an anthology of four case collections written by You Zài-Jīng (尤在涇), Bó Rén (伯仁) Wáng Xù-Gāo (王旭高), and Zhāng Zhóng-Huá (張仲華). Liu is the anthologist and comments on each of the cases. The passage cited here appears in the context of a case in Wang's Case Histories from the Encircling River and the Grass Court (環溪草堂医 案 Huān Xī Cǎo Táng Yī Àn).

Liǔ Bǎo-Yí (柳宝诒) (1981, original Qing dynasty). Liù Bǎo-Yí's Case Studies. (柳宝诒医 案 Liù Bǎo-Yī Yí Àn). 北京:人民卫生出版社. Beijing: Peoples' Health Publishing.

Liu, Guo-Hui (2001). Warm Disease, A Clinical Guide. Seattle, WA: Eastland Press

Huáng Huáng (黄煌) (1998). Explanations for Fifty Medicals that Zhāng Zhòng Jīng Used. (张仲景五十味药证 Zhāng Zhòng Jīng Wǔ Shí Wèi Yào Zhèng). 南京: 中国:人民卫生出版 社. Nanjing: Peoples' Health Publishing.

Wáng Tian Rú (王天如) (1988). A Select Wen Bing Anthology (溫病專輯 Wēn Bíng Zhuān Jí) Beijing: TCM Ancient Medicine Publishing. Wú Qiān (吴谦) (1742). The Golden Mirror of Medicine (吴谦医宗金鉴 Yī Zōng Jīn Jiàn). Zhāng Jī (Zhāng Zhòng-Jīng, 张仲景) (circa 150-219 c.e.). Essentials from the Golden Cabinet. 金匮要略 (Jīn Guì Yào Lüè).

<sup>25</sup> Liu Guo-Hui, p. 67.