Lurking pathogens
A case study from the late Qing dynasty

By Jason Blalack & Charles Chace

Introduction and Liu Bao-Yi’s biography

Liu Bao-Yi (柳寶漪) (1842-1901) is a transitional figure in the development of warm disease theory, positioned as he is at the end of the Qing dynasty and at the cusp of the modern era. Born in the province of Jiang Su, the county of Jiang Yin and the town of Zhou Zhuang, his courtesy name was Zi Gu Sün and his assumed name was Guan Qin Qing. Liu studied Confucianism in his youth but quickly abandoned it to study medicine. He was renowned both for his ability to diagnose and treat warm diseases (温病 wēn bìng), and for his innovative theories. Early in his practice he became famous for his ability to cure every patient, a reputation bolstered by his successful treatment of a high government official. Later in his life, Liu returned to Zhou Zhuang where he wrote and taught many students, a number of which went on to become well-known physicians in their own right. His best-known work is a compilation of case studies with commentary, entitled Liu’s Selection of Case Records by Four Physicians (Liu Xuan Si Jia Yi An). The case presented below is excerpted from this book.

Liu is best known for his work in understanding lurking pathogens (伏邪 fú xié), a topic he spent his life studying and that he treated with great success. A warm disease lurking pathogen refers to a pathogen that is contracted, brews, and lurks in the interior, or alternatively might be nothing more than an ongoing accumulation of internal heat. In either case a new warm disease pathogen or disrupting factor can pull out the lurking pathogen creating a complex and sometimes serious eruption. Many times the initial stages will manifest as interior heat, but there are also many similarities to the initial stages of an exterior warm disease. Liu established important guidelines in treating such diseases.

Much of Liu’s thinking can be understood as a development of ideas advanced by Wang Meng Ying whose work was based in turn on Ye Tian Shis’s. Liu made three major contributions to the treatment of lurking pathogens in warm disease.

1) Liu believed that even though cold damage (伤寒 shāng hán) tends to damage a person’s yang, and warm disease (温病 wēn bìng) tends to scorch a person’s yin, both theories account for the relationship between the body’s correct qi and the pathogen (邪 xié), and states of deficiency and excess within the body. He was therefore of the opinion that warm disease can be treated in accordance with the methods of the six channels described by cold damage theory even though lurking pathogens in warm disease transmute via different routes than pathogens associated with cold damage. In the case that follows, both the original physician and Liu Bao-Yi rely on six-channel theory as their primary diagnostic paradigm even as they treat in a manner that is entirely consistent with the principles of warm disease. Our commentary on this case draws upon both six channel and four aspect theory as a means for
Fluids become a major issue in following visits: if one considers the etiology of lurking pathogens, it can help explain the extreme situation that is to come.

Visit 1

[This patient has] chest oppression, headache, and alternating fever and chills, [indicative of] a pathogen located in the shào yáng. He is sweating with a fever that is still unresolved, which is damage due to wind. There is a thin coat in the center of his tongue and the sides are dry and red. In a yin-depleted body, with a pathogen that is unable to reach outward [to be resolved], and also fluids that have become secretly damaged, these are signs of a gradual transformation into dryness. The condition has persisted for seven days, he has epigastric discomfort upon palpation, and although he wants to move his bowels he cannot. The pathogen in the shào yáng has passed into the yáng ming, and the Stomach qi is about to become dry and replete. [The goal is to] avert the onset of delirious speech. The plan is to use methods for resolving both the shào yáng and yáng ming to treat [this condition].

<table>
<thead>
<tr>
<th>Chái Hú</th>
<th>Guā Lóu Rén</th>
<th>Huáng Qín</th>
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<tr>
<td>Dòu Chí</td>
<td>Bàn Xià</td>
<td>Hēi Zhī</td>
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<tr>
<td>Zhǐ Shì</td>
<td>fèi Gēng</td>
<td>Zhú Ru</td>
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<tr>
<td>Gān Cāo</td>
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1 qian & 5 fen of Phlegm-Rolling Pill (Gān Tán Wǎn) taken in addition to the above formula.

Liǔ Bāo-Yí’s comments: Deeply hidden warm pathogens often appear in conditions characterised by frequent sweating without resolution; this is not necessarily due to wind. Shào yáng-yáng ming combination diseases are Dà Chái Hú Tāng (Major Bupleurum Decoction) patterns. Wang believed the patient was developing signs of dryness but not yet suffering from dryness, and hence did not use Dà Huáng but instead a small dose of Phlegm-Rolling Pill to indicate his intent [i.e purging].

- A glossary of herb names used in this article appears on page 36.
The pathogenic expression of these deeper levels is sensitive to lifestyle factors, particularly dietary indiscretions. In this case study, Lü Bao-Yi comments on a case record by another eminent physician, Wáng Xu-Gào (王旭高) (1798-1862), providing the reader with two points of view. Wáng himself did not even consider this a lurking pathogen and it is instructive to consider how each physician approached the case. The material is presented in both Chinese and in translation. Each visit is followed by our commentary and analysis. The first is on the facing page, with commentaries below.

Wáng Xu-Gào’s interpretation:

- This disease is due to an external wind invasion that has penetrated to the shào yáng-yăng ming levels. Wáng not only acknowledges that the fluids had become damaged and signs of dryness were starting to emerge, but the pathogen was unable to be resolved.
- He assumes that the etiology involved a progression from tài yáng to shào yáng to yăng ming.

Lü Bao-Yi’s interpretation:

- The pathodynamic is not necessarily due to wind, but is instead an expression of a lurking pathogen.
- Although the fluids are not yet completely depleted, they have become sufficiently impaired so that phlegm is forming. This mild degree of fluid damage does not preclude the use of purgative methods. Gùn Tán Wàn’s use here is based primarily on its general purgative influence, which is the means by which it transforms phlegm.
- Lü agrees with Wáng in all the particulars of the case except for its etiology.

Translators’ interpretation & comments:

- Physicians of Wáng’s era typically strove to combine the classical cold-damage (shàng hàn) model with the more modern warm disease (wēn bìng) paradigm. Wáng’s initial assessment of this case as a shào yáng-yăng ming level disease exemplifies such an integrative perspective.
- In cold-damage patterns, delirious speech occurs when Stomach fluids become dry. Wáng wanted to prevent this possibility, and we might assume that he felt that eliminating the root, phlegm-heat, would be sufficient.
- Notice that Wáng’s formula does not directly address the fluid depletion even though he says the fluids had been damaged. He considers the fluid depletion of little regard. Lü notes that there are signs of dryness but the patient was not yet suffering from dryness. However, fluids do become a major issue in following visits. If one considers the etiology of lurking pathogens, it can help explain the extreme situation that is to come. lurking pathogens can hide in the deep layers of the body and insidiously damage yin. It is not the current “wind pathogen” that is causing the dry red tongue, but an ongoing or constitutional condition fueled by a lurking pathogen.
- Lü does not tell us why he thinks the lurking pathogen came about.
- Lü counsels that conditions characterised by ongoing sweating without resolution accompanied by signs resembling an exterior involvement may actually be due to a lurking pathogen.
- This visit’s condition was brought about by a lurking pathogen characterised by phlegm, heat, or phlegm-heat. Either way, there were two pathogenic factors, phlegm and heat, and it was necessary to remove them prior to engendering fluids. This assumes that the heat and/or fluid depletion was mild. This also explains the presence of Bàn Xià, Zhu Rū, Zhī Zì, and the absence of Bái Shào (normally in Dà Chái Hú Tāng) in a formula that is supposed to be treating the imminent onset of fluid dryness.

Herb analysis:

- This formula may also be understood as a combination of Huang Qín Tāng (Scutellaria Decoc- tion) and Zhī Zì Dòu Chì Tāng (Gardenia and Pre- pared Soybean Decoction), both of which function to vent lurking pathogens outwards. Interestingly, although Wáng understood the concept of lurking pathogens, he did not identify the presence of one here. He viewed the etiology exclusively in terms of a wind invasion. The fact that Lü does not quarrel with Wáng’s treatment indicates that both etologoes require the same treatment approach. For example, after exterior wind has penetrated to the interior and transformed to the above presentation, one must include a passageway out through the exterior. Furthermore, the concept of evicting a pathogen outwards for such a pattern is a further evolution (or deviation) from a cold-damage approach. The typical cold-damage yăng ming-tài yáng patterns do not include exterior venting medicinals, and typically concentrate on evicting through the bowels. This exemplifies a basic warm disease (wēn bìng) concept that when dealing with wind invasions or lurking pathogens, one must always try to vent it outwards as well as downward via the bowels and urine. One might say the more viable avenues of exit the better.
- The Gùn Tán Wàn (phlegm rolling pill) purges and transforms existing phlegm more gently than Dà Huáng.
- Jíe Gèng and Guà Lòu Rèn are included in the prescription to open the chest and assist in moving the bowels.
- Dàn Dòu Chì and Zhī Zì are used to treat vexing heat in the chest. Although not explicitly stated in Wáng’s case, these symptoms are described in a subsequent note as having been eliminated.

But [people should know that] lurking warm pathogens such as this have many layers. One layer can resolve, and then one to two days later another layer may thrust out. Moreover, the pathogen thrusting out from subsequent layers will invariably be worse than the first.
Translators’ interpretation & comments:

- The sweat and bowel movement were indicators that the pathomechanism had begun to relax. Previous sweats had not been effective, and although this prescription was not specifically diaphoretic in nature, the sweat that occurred was the result of the relaxation of this pathomechanism.
- The shào yáng yang ming pathomechanism was now resolved leaving a remnant pathogen. Some heat also remained.
- The heat made the patient feel hungry, but the remaining phlegm meant eating too much was contraindicated.
- The pathogenetic influence as a whole had diminished and now some fluid engenderment could begin, to protect the Stomach.
- Including more evicting medicinals could have helped prevent subsequent complications.

Herb analysis:

- **Đàn Đào Chủ (fragrantly stir-fried)** continued to provide a pathway for venting heat to the exterior. Note the Heart/irritability symptoms are gone.
- **Bàn Xià, Chuàn Bì, and Chén Æ all transform phlegm. Chuàn Bì has the secondary function of moistening as opposed to choosing Zhe Bì Mù.**
- **Chi Fu Shen, Yi Jin, Shi Hu, Tông Cáo and Zhi Rù all clear heat in addition to their other functions.**
- **Chi Fu Šhen and Tông Cáo clear heat by disinhibiting dampness.**
- **Yi Jin clears heat, transforms phlegm, and resolves qi constraint in the chest.**
- The combination of the Chi Fu Shen and Yi Jin also serves to clear heat from the Heart and Pericardium, further protecting the patient from delirium.
- The inclusion of Shi Hu reflects the addition of the principle of fluid protection. Although, according to some, Shi Hu is a questionable call because it can also trap a pathogen in.

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**Visit 2**

[The patient] had a sweat and a bowel movement, which loosened the mechanism of the pathogen. This has eliminated the chest oppression, throbbing of the Heart, vexation and annoyance, and produced a slight decrease in the headache. Although the patient feels weak and hungry, it would not be good if he ate too much, and it is also inappropriate to administer supplementing medicinals at this time. Therefore harmonizing the Stomach and transforming the [remaining phlegm] pathogen is all that is necessary at the moment.

**Liu Bào-Yi’s comments:** The formula is extremely appropriate.

**Primary signs/symptoms were eliminated. Felt hungry, yet hard to eat. Mild pathogen still remained (phlegm & heat). Qi aspect**

**2nd lurking pathogen**

- Patient overate, lodging pathogen and unable to digest food
- Phlegm and heat constrained between Stomach and Heart, damaging yin (not yet dryness). Steaming constraint of dampness and heat. Spirit involvement begins.

**Why?** Because subsequent visits do not conform to the etiology of just overeating. More evicting medicinals in the second visit could have prevented this and assisted in pulling out the pathogen.

**Liu’s etiology**

**Visit 3**

**Reduction of pathogen**

**Why?** Because subsequent visits do not conform to the etiology of just overeating. More evicting medicinals in the second visit could have prevented this and assisted in pulling out the pathogen.

**Primary signs/symptoms**

- Generate fluids, transform turbidity, and clear Stomach and Heart.

**Liu’s etiology**

**Phlegm and heat constrained between Stomach and Heart, damaging yin (not yet dryness). Steaming constraint of dampness and heat. Spirit involvement begins.**

**Multiple-layered lurking pathogen emerging**

- deeper
- more severe

**Only Shi Hu and Lu Gen**
The pathogen has penetrated into the Pericardium where it is obstructed and cannot be evicted. Urgently clear, drain, and aromatically open, in the hopes of turning the disease around.

Visit 3

After having [taken the first prescription] that induced a sweat and a bowel movement, I administered the method of harmonizing the Stomach and transforming the pathogen. The patient [initially] felt quite peaceful after taking the first dose of herbs; however, he then took a severe turn for the worse after taking the second dose of herbs. As the good man was worried about his deficient condition he over-ate [thinking that he would strengthen himself, but actually just] caused the pathogen to become lodged. Now it is unable to diffuse and transform, and is constrained between the Heart and Stomach resulting in an accumulation of dampness engendering phlegm. This has produced a steaming heat that evaporates and condenses the fluids, leading to vexation and agitation, nausea, and confused speech. His pulse, on both hands in the cun and guān positions, is thin, slippery, and rapid. Both chéi positions lack spirit. The lateral edges of the tongue are dry and red, while in the centre the coat is yellow and slimy. This is all steaming constrained dampness and heat – signs of the pathogen about to become dryness but not as yet dryness, threatening to sink deeper into the body, but not yet sinking. Given the body's yan depletion how can one not be worried about the potential for sinking interiorly? The plan is to use a treatment method based half on Xie Xīn Tāng (Drain the Epigastrium Decoction) and half on Dào Chì Shān (Guide Out the Red Powder) in order to generate fluids, transform turbidity, and clear the Stomach and Heart.

Xì Jiāo  Chùăn Lián  Bàn Xià  Zhī Shí
Chí [Fù] Líng  Xiān Shí Huà  Liàn Qiáo  Jià Hóng
Hèi Zhī  Shēng [Gān] Cāo  Tōng Cāo  Yù Jīn
Zhí Rú  Lù Gēn

In addition, 6 fen of Mister Wan’s Heart-Clearing Pill was administered.

Lǐu Bāo-Yì’s comments: In deducing the cause of disease, [1] would never be so careless in my exploration of the case [as was Wang]. But [people should know that] lurking warm pathogens such as this have many layers. One layer can resolve, and then one to two days later another layer may thrust out. Moreover, the pathogen thrusting out from subsequent layers will invariably be worse than the first. This case is an example of the outbreak of a two-layered pathogen. One need only review the subsequent visits and the patient’s condition becomes self-evident. If we infer that his diet trapped the pathogen, then this [inference] does not conform to the subsequent expression of the disease. Moreover, [the patient] would not have developed such severe symptoms. [Finally], if one examines the contents of Mister Wan’s original formula we see that Shān Zhī, Chùăn Lián, Yù Jīn were already present in the decoction; all it lacked was the single herb Nù Hâuâng. So, given the patient’s condition, it really was unnecessary to add it [ie, Mister Wan’s Heart-Clearing Pill].
emergence, but a circumstance of overeating (diet) plus a previous lurking pathogen. This lurking pathogen can also be viewed as a constitutional condition of the patient.

2) In the presence of multiple layers of lurking pathogens, one must work through successive layers, evoking what are sometimes progressively more severe pathogens.

Although the patient had overeaten and was unable to fully digest his food, the formula did not address food stagnation. Furthermore even with the etiology, there was no purging at this stage. This is because at that time neither food nor damp-heat-phlegm complexity was located in the Intestines, the target for purging. Food stagnation was not addressed because “the food” had already merged/transformed with other pathogens resulting in dampness and phlegm.6

Pathogen obstructs and penetrates deep into the chest and Pericardium. Construction aspect [Phlegm & heat in Pericardium].

Visit 4

Translations' interpretation & comments:

- There is phlegm-heat in the chest-centre —Pericardium.

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Translations’ interpretation & comments:

- There is phlegm-heat in the chest-centre —Pericardium.
His expression now clears a bit when called, but he still cannot utter any words, [indicating] that while the pathogen is on the verge of eviction, it has not yet been evicted. Thinly scattered, faint, red spots have appeared on his chest and rib sides, sparse and unobvious. The macules are trying to erupt but have not yet erupted. He has bad breath, constipation and flatulence, showing repletion dryness [ie, dry stool] has again accumulated in the yang ming. His tongue is shortened, the center scorched and the sides crimson indicating that the pathogenic fire in the chest is blazing. In the midst of using aromatic, acrid, opening and draining [medicinals], add the strategy of generating fluids to sweep away the repletion. I am doing my utmost to plan a way of treatment, in the slim hope that we can save him. The following medicinals were added to the previous prescription:

Shǔ Shēn Shēng Di
dà huáng Xuán Míng Fēn (Máng Xiǎo powder)

Lù Bào-Yì’s comments: After the administration of this prescription [the physician] believed that he had achieved some significant resolution [of the pathogen] and that the heat pathogen had been drained from the qi aspect. Therefore, in the subsequent prescription he shifted his focus to clearing the nutritive.

Translators’ interpretation & comments:
It is important to note that the macules were trying to erupt but could not. Macules, in general are a positive sign that heat is being released. Generally speaking, when macules are not fully erupting, one should encourage the eruption with medicinals like jǐng jié, gé gèn etc. which vent trapped heat from the nutritive and/or blood aspects to the surface. Trapped heat at the nutritive and/or blood may be complicated or caused by constipation preventing the expression of macules. One should purge gently and only for a brief time, backing off as soon as the bowels start to move. Hence dà huáng and máng xiǎo powder were added to the prescription. This lends validity to Wáng’s methodology.

Endnotes
1. 臭（shuì chén）
2.  This concept is rarely discussed in Chinese medicine, although it is consistent with some homeopathic ideas concerning the resolution of miasms and it is a useful model in treating modern complex illness. The typical Chinese medical model of even severe languages pathogens is that with proper treatment the intensity of their presentation diminishes as the pathogen progresses outward. Only if the condition is not treated or is treated improperly will the signs and symptoms increase in intensity: In this case record, one pathogen is cleared away only to expose a deeper one.
3. His given name was Wáng Táì-Lín (王泰林).
4. This is Lù Guó-Huì’s interpretation of Wáng’s rationale.
5. Signs and symptoms include: high fever, irritability and restlessness, delirious speech, impaired consciousness, muscle twitches, spasms, convulsions, thirst, dark urine, severe constipation, and childhood convulsions. With a treatment principle of: clear heat from the Pericardium, open orifices, purge dried stools and heat from the Large Intestine.
6. Although it is also somewhat of a negative sign in regard to the pathogen being located at a relatively deeper layer of the body (nutritive and/or blood).
7. Lù Guó-Huì, pg. 125-126: “Constipation due to accumulation of heat in the Large Intestine may impair the flow of qi on the surface, retarding the expression of macules or papules. In this case, the practitioner should purge gently and only for a brief time.”

Bibliography
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