

## Li Shi-Zhen's Extraordinary Vessel Acupuncture

Much as Chinese landscape painting is characterized by what it omits, Li Shi-Zhen's approach to extraordinary vessel acupuncture is similarly defined by what it leaves out. This is particularly evident in his failure to mention the eight confluent holes of the extraordinary vessels (*ba mai jiao hui xue* 八脈交會穴) anywhere in his discussion. These holes, often called the 'master-couple' holes in modern English language discussions, have been a defining characteristic of extraordinary vessel therapeutics since their appearance in Xu Feng's (徐鳳) *Comprehensive Compendium of Acupuncture and Moxibustion* (*Zhen jiu da quan* 針灸大全, 1439), more than 130 years prior to the publication of Li's book on the subject.

The eight (confluent) holes were first identified by Dou Han-Qing (竇漢卿) in his *Guidebook to Acupuncture Classics* (*Zhen jing zhi nan* 針經指南, 1295) where he also established the extraordinary vessel hole pairings we know today. Inner Pass (PC-6) is paired with Yellow Emperor (SP-4), Outer Pass (TW-5) with Close to Tears (GB-41), Broken Sequence (LU-7) with Shining Sea (KI-6), and Extending Vessel (BL-62) with Back Ravine (SI-3). Although some view Dou as the father of extraordinary vessel therapeutics based on the eight confluent holes, the link to them in his book is tenuous at best.<sup>1</sup> Dou simply observes, "The eight holes where two or more channels intersect are the essentials of acupuncture [practice]."<sup>2</sup> For Dou, the efficacy of these holes is a consequence of their influence on multiple primary channels, not on the extraordinary vessels.

One-hundred-and-forty-four years later, Xu Feng's *Comprehensive Compendium of Acupuncture and Moxibustion* explicitly linked the eight holes to the extraordinary vessels through a system of calendrical correspondences known as the 'eight methods of the divine tortoise' (*ling gui ba fa* 靈龜八法). Configured around a heaven-based arrangement of trigrams, this method assigns an extraordinary vessel and one of the eight confluence holes to each trigram. Each of the eight holes is deemed open or available to activation at a particular time of the day based on its numerological correspondences with a number of other divinatory systems, including the river cart map (*he che tu* 河車圖) and the nine palaces (*jiu gong* 九宮). A similar system known as the 'soaring eightfold method' (*fei teng ba fa* 飛騰八法) is also based on a heaven-based arrangement of trigrams. The soaring eightfold method is believed to be derived from ideas presented in *The Token for the Agreement of the Three According to the Changes of Zhou* (*Zhou yi can tong qi* 周易參同契, 142 BCE), a seminal text of internal alchemy

that figures prominently in Li Shi-Zhen's *Exposition on the Eight Extraordinary Vessels*.

By the time of Gao Wu's *Gathering of the Blossoms of Acupuncture* in 1529, the use of the eight confluent holes of the extraordinary vessels and their pairings had expanded beyond chronologically based acupuncture, and they were being combined with other holes to treat specific conditions. They have continued to be used in both ways and are unquestionably a convenient and effective means of organizing eight vessel treatments. Despite their obvious utility and their original affiliation with the *Classic of Change* (*Yi jing* 易經), the eight holes are conspicuous by their absence from Li's *Exposition*. If from no other source, Li was almost certainly aware of the eight confluence holes from *Gathering of the Blossoms of Acupuncture*. His selection of holes on the trajectories of the *wei* and *qiao* vessels so closely matches those described in this text that it is difficult to imagine that he was unfamiliar with it. Yet Li makes no mention of the eight holes or their pairings, nor does he appear to give particular recognition to any of these holes in his discussion of extraordinary vessel trajectories. Shining Sea (KI-6), the confluent hole of the *yin qiao*, is granted no more importance than any other hole on that channel, and in fact, Li pointedly begins its trajectory more distally with Burning Valley (KI-2). It is simply another hole on the trajectory of the *yin qiao*.<sup>3</sup>

Given Li's involvement with interior alchemy, we might expect to see the eight access holes referenced indirectly in his use of trigram symbolism, yet this is not the case. The trigram attributions in his discourse conform to neither the later heaven-based arrangement of the divine tortoise method nor the earlier heaven-based arrangement of the soaring method. His use of the terminology of the *Classic of Change* in the *Exposition* provides no clear link to Dou's eight confluent holes.

The *Exposition's* description of extraordinary vessel trajectories is largely consistent with those presented in Hua Shou's (滑壽, also known as Hua Bo-Ren 滑伯仁) *Comprehensive Elucidation of the Fourteen Channels* (*Shi si jing fa hui he cuan* 十四經發揮合纂, 1341) and Gao Wu's *Gathering of the Blossoms of Acupuncture*. Li's hole locations are based, for the most part, on those of the *Systematic Classic of Acupuncture and Moxibustion*. That said, Li occasionally departs slightly but significantly from these texts. The most notable instance of such a diversion is his description of the *ren*, *du*, and *chong* vessels all arising from Meeting of Yin (CV-1), an arrangement that bears directly on Li's understanding of the use of the eight vessels in interior alchemy. In the practice of interior alchemy, Meeting of Yin is a pivotal area for both the circulation of qi within the body and for its communication with the qi of the macrocosm. As the three core vessels in the eight vessel system, the *ren*, *du*, and *chong* must all have direct access to this crucial nexus of qi. He tinkered with the other end of the *ren* vessel as well. Where most sources terminate the *ren* at Sauce Receptacle (CV-24), Li terminates the *ren* at Tear Container (ST-1). The rationale for this change is less clear.

## Does This Text Take Acupuncture Seriously?

### An Herbalist's Acupuncture?

The absence of the eight confluent holes from Li's *Exposition* has led some commentators to conclude that the book does not really concern acupuncture at all and that Li Shi-Zhen's only real treatment modality is herbal medicine.<sup>4</sup> This 'herbalist's acupuncture' perspective gains some currency when one considers that the acupuncture material in the *Exposition* is invariably embedded in discussions focusing on the various pathodynamics of the extraordinary vessels. One can argue that references to specific treatment holes are largely incidental to his primary interest in the manifestations of extraordinary vessel disease, as expressed in symptoms and pulse presentations.

In his discussion of diseases of the *chong* vessel, Li uses a passage on atrophy from Ch. 44 of *Basic Questions* to advance his discussion on the importance of the yang brightness channels in *chong* pathology. This passage concludes with the recommendation that one should "tonify at the spring holes and promote flow at the transport holes [of the yang brightness channels] to regulate deficiency and excess, harmonize abnormal and normal [flow of qi] so that the sinews, vessels, bones and flesh will each recover from disease in their prevailing months."<sup>5</sup>

Passages such as this repeatedly confront us with the question of what to make of these acupuncture prescriptions. In this case, is the well-known spring-transport hole treatment strategy intended as a viable approach for *chong* disorders presenting as atrophy, or does it exemplify a strategy for treating all *chong* pathologies? Then again, perhaps this piece of information is completely spurious. Perhaps the thrust of the passage in the *Exposition* concerns the disease itself and not the therapy.

The herbalist's acupuncture interpretation certainly simplifies our understanding of the *Exposition on the Eight Extraordinary Vessels*. From this point of view, the text is a treatise presenting theoretical material pertinent to herbalists and practitioners of interior alchemy. The acupuncture material is of interest purely for its value in illuminating various aspects of pathological and physiological function. That is precisely why Li did not bother to include the significant body of extraordinary vessel therapies presented in the *Great Compendium* and *Gathering of the Blossoms of Acupuncture*. Yet, despite its appeal, this hypothesis leaves a number of unanswered questions.

### Acupuncture in the *Exposition*

If Li Shi-Zhen was fundamentally disinterested in acupuncture, then why does he attend to it in the detail he does? His descriptions of extraordinary vessel trajectories are more detailed and precise than any that had preceded it. If he had merely wished to include a comprehensive description of their trajectories for the sake of thoroughness, then why did he go to such lengths to alter those presented in previous books, adding a hole here and omitting a hole there? This question also extends to his location of

the acupuncture holes themselves. Why would he go to the trouble of painstakingly describing hole locations that are often at variance with existing sources if his book was not actually intended specifically for acupuncturists? That level of descriptive precision is of little use to either herbalists or alchemists. What difference can it possibly make to an herbalist whether the *ren* vessel terminates as Sauce Receptacle (CV-24) or Tear Container (ST-1)? The symptoms that Li attributes to the *ren* have no bearing on the head at all, much less this area of the face. For that matter, we might also ask why, if Li's interest was actually limited to herbal medicine, is the depth of this information so spotty? He goes on at length regarding herbal formulas for the *chong* vessel and yet remains completely silent concerning the herbal therapies for the *yin qiao*. This is a topic we will take up again in the next chapter on herbal medicine in the *Exposition*.

If these objections are not sufficient to dissuade us from fully embracing the herbalist's acupuncture interpretation, then there is really nothing left to say regarding the acupuncture material in the *Exposition*. From this perspective, Li Shi-Zhen was undeniably an accomplished herbalist and alchemist, and he had a finely honed sense of theoretical matters pertaining to the extraordinary vessels, but he was not an acupuncturist. To be sure, the broad pathodynamics suggested by these passages are by no means limited to herbal applications. They have a direct bearing on the range of symptoms that eight confluent hole methods may address, but we need not trouble ourselves too much with the details.

It is worth considering that, however one chooses to interpret the book as a whole, the contents that have proven to be the most influential over the course of medical history concern acupuncture, not herbal therapy or alchemy. The irony of the herbalist's acupuncture hypothesis is that it leaves five centuries of acupuncture commentators quoting from a book that is not actually about acupuncture at all.

Yet there is another lens through which to interpret the *Exposition*. Perhaps Li Shi-Zhen actually took the acupuncture therapeutics in his book seriously. Perhaps the acupuncture passages in the *Exposition* are indeed intended to suggest a viable approach to acupuncture. If so, then it behooves us to engage this material on its own terms and see where it leads. To be sure, the therapeutic model it suggests is much less tidy than that offered by the eight confluence hole methods, and it poses some challenging questions of its own. Despite its difficulties, the model of extraordinary vessel therapy presented in the *Exposition* encourages the reader to think about eight vessel acupuncture in a fresh way.

In contrast to the eight hole treatment strategies advanced by Dou Han-Qing, Xu Feng, and Gao Wu, the earliest and simplest approaches to extraordinary vessel treatment focused on the use of holes situated along their trajectories.<sup>6</sup> This methodology, originally presented in the *Inner Classic* and *Pulse Classic*, is the approach promoted by Li throughout his *Exposition on the Eight Extraordinary Vessels*. A symptom or complex of signs and symptoms is identified as pertaining to a particular extraordinary vessel, and a hole on the trajectory of that vessel is appointed to treat the condition. Li's citation of *Divine Pivot* in treating eye problems exemplifies this approach.

“When the eye is red and painful, beginning at the inner canthus, then select the *yin qiao* [the Intersection Reach (KI-8) hole].”

As with all channels, the trajectory of the extraordinary vessels has a significant influence on their pathology. The *yin qiao* treats ophthalmological problems in part because it terminates at the inner canthus. To Li Shi-Zhen's way of thinking, the converse must also be true: the physiology and the pathology of an extraordinary vessel must similarly influence its trajectory. He develops this principle in a number of innovative ways.

In paragraph 24 of its chapter on diseases of the greater yang, the *Discussion on Cold Damage* contains an instruction to needle Wind Pond (GB-20) and Wind House (GV-16) in the event of a failure to induce a sweat. According to Li, this choice of holes can be explained in terms of their location on the *yang wei* vessel. For Li, the chills and fever indicative of improper regulation of the protective and nutritive qi are a *yang wei* disorder. This is a curious line of reasoning for him since elsewhere he fails to include Wind Mansion on the trajectory of the *yang wei*, despite its inclusion in both the *Comprehensive Elucidation of the Fourteen Channels* and *Gathering of the Blossoms of Acupuncture*. Perhaps this omission was unintentional. Li's description of the *dai* vessel is another example of his willingness to sculpt a trajectory to accommodate the demands of theory. With the exception of the *Pulse Classic*, acupuncture texts did not include Camphorwood Gate (LR-13), the front alarm hole of the spleen, in the trajectory of the *dai*, yet Li is careful to incorporate it into his own description. His reasons for this inclusion become immediately apparent in his subsequent presentation of *dai* vessel pathology, where spleen disharmonies are the preeminent pathodynamic occurring in that vessel.

## Nontrajectory Treatment Strategies

The use of non-trajectory holes as a means of activating the extraordinary vessels did not begin with eight confluence holes and Dou Han-Qing; it originated in the *Inner Classic* and *Pulse Classic*. This approach to extraordinary vessel treatment figures prominently in the *Exposition*. Li cites Wang Shu-He as advocating the use of Guest Host (GB-3) in the treatment of *yang wei* symptoms, including obstruction-itching of the muscle and flesh, skin pain, and paralysis in the lower extremities, and fainting and loss of voice. The rationale for the use of this hole to treat this syndrome is unclear. It is simply presented as one part of a pulse-symptom-treatment complex identified as an extraordinary vessel pattern. This type of treatment strategy also appears in Ch. 23 of *Divine Pivot*, which states, “For wind spasm and arched-back rigidity, first select the greater yang in the popliteal fossa at a blood network and let out blood. If the attack is due to a cold pathogen, select the *yin qiao* above the Three Hairs at the blood networks and let blood out there.”<sup>7</sup>

Once again, we see a very specific symptom presentation that is ostensibly treated by an extraordinary vessel using a hole not on its trajectory. In the case above, the

three hairs refers to the acupuncture hole Large Pile (LR-1). The *Exposition* contains many passages similar to these, and they reflect a fundamental principle that may be applied to the interpretation of the medical literature at large: Symptoms and signs consistent with eight-vessel pathology are extraordinary vessel pathologies regardless of whether or not they are explicitly identified as such. Li applies this principle most fully with regard to herbal therapy, which we will discuss in the following chapter.

In his acupuncture discourses, Li does not stray far from authoritative classical texts that explicitly mention the eight vessels. Still, his juxtaposition of somewhat obscure references to the extraordinary vessels alongside more familiar passages is informative in itself. In his discussion of diseases of the *qiao* vessel, he mentions that the abundant yang vessel (*chang yang mai* 昌陽脈) causes people to experience “low back pain, which radiates to the breast along with blurred vision, and in serious [cases], arched-backed rigidity and a curled tongue with an inability to speak.”

Although this passage from *Basic Questions* does not say so directly, most commentators concur that the abundant yang vessel is the *yin qiao*, hence its inclusion in Li's *Exposition*. Li Shi-Zhen's contribution to extraordinary vessel acupuncture is characterized less by innovation than by synthesis. In bringing these disparate references together in one place, he helps to more clearly define the tools available to acupuncturists in accessing the eight vessels.

Another passage in the *Exposition* that only indirectly concerns the extraordinary vessels also presents a fairly intricate model of acupuncture treatment, combining trajectory holes with nontrajectory holes. Early in his discussion of diseases of the *chong* vessel, Li presents a passage from Ch. 26 of *Divine Pivot* addressing the treatment of qi counterflow into the chest. Here we are instructed, “when there is a counterflow ascent of qi, prick the depression below the breast and at the pulsing vessel below the chest.” The passage goes on to state that, “If there is abdominal pain, prick the pulsing vessels to the left or right of the umbilicus,” and, “If [the pain] does not stop, then prick Qi Thoroughfare (ST-30).” To Li's way of thinking, the symptoms of qi counterflow into the chest and abdominal pain suggest a *chong* pathodynamic. In addition, Qi Thoroughfare (ST-30) is an influential hole on the pathway of the *chong* vessel. *Divine Pivot* is vague with regard to the other holes that should be needled. Various commentators have proposed Breast Window (ST-16), Roof (ST-15), Central Treasury (LU-1), and Chest Center (CV-17) as possible candidates, the first three of which apparently influence this vessel by virtue of their capacity for treating symptoms characteristic of *chong* pathologies. Chest Center is on the trajectory of the *chong*.<sup>8</sup>

The approaches to acupuncture therapeutics that emerge from the *Exposition* allow for a number of treatment strategies. Treatment holes may be located on or off the trajectories of the extraordinary vessels, and these two classes of holes may be combined. At least in theory, these approaches offer a flexible means of organizing extraordinary vessel treatments responsive to a wide range of clinical presentations.

One disadvantage of relying too heavily on eight confluence hole methods of extraordinary vessel treatment is that they have the insidious tendency of distancing the

practitioner from the extraordinary vessels themselves. It becomes very easy to needle Shining Sea (KI-6) and Broken Sequence (LU-7) and to think, "There! I've accessed the *yin qiao*," without having to give much thought to its trajectory or the state of qi within it. This method fosters a more abstract relationship with the eight vessels. They are easily relegated to functional entities, lurking somewhere beneath the primary channels that are more amenable to direct experience. This is taken to its extreme in some of the Japanese styles of extraordinary vessel practice where these vessels are conceptualized as functional pairs. In needling Shining Sea (KI-6) and Broken Sequence (LU-7), we no longer access the *ren* vessel so much as the *ren/yin qiao* pair.<sup>9</sup>

At the very least, the acupuncture methodologies presented in the *Exposition* are a potential antidote to this tendency. To be of any use whatsoever, they require a much more comprehensive understanding of extraordinary vessel trajectories and intersection holes than that demanded by the eight confluence hole methods. Because there are always multiple holes to choose from, these techniques also require a more finely tuned appreciation of extraordinary vessel pathology and hole indications. Finally, the necessity of discriminating among a potentially wide range of treatment options demands more palpatory skills of the practitioner than relying on fixed rules of hole selection.

Of course, such a system has its drawbacks. In contrast to the eight hole extraordinary vessel techniques, the methods advocated by Li Shi-Zhen are messy and potentially unwieldy. Moreover, it must be admitted that the approach advocated by Li raises more questions than it answers. We are left to wonder whether a hole described in the *Pulse Classic* or *Divine Pivot* as treating a certain extraordinary vessel treats only the symptoms with which it is associated or whether it is meant to exemplify a larger therapeutic principle. When we needle Yang Assistance (GB-38), is its influence limited to the treatment of obstruction, generalized rigidity, and seizures, or does this address all pathologies of the *yang qiao*? This question becomes even more pertinent when we move to treatment holes located off the established trajectories of the eight vessels. Does Guest Host (GB-3) treat all *yang wei* disorders, or is its influence limited to those described by Wang Shu-He?

It is highly unlikely that we will ever know precisely how Li Shi-Zhen meant for readers to interpret the quotations he includes in his *Exposition*, much less how Wang Shu-He and the original authors of the *Inner Classic* meant for us to understand them. That does not mean that the questions posed above are not worth asking. The clinical ferment engendered by such inquiry is potentially as useful as any quasi-authoritative answer.

What, then, are some of the issues facing a modern clinician interested in the practical application of these ideas? Any attempt to evaluate an acupuncture treatment strategy requires some basis for comparison with other strategies, and this is a particularly tricky proposition when it comes to the extraordinary vessels. Because they are embedded within the 12 primary channels, it can be very difficult in practice to distinguish one from the other. Regardless of whether one elects to use Dou's

eight confluence holes, the holes on the trajectories of the extraordinary vessels, or any other method of engaging the eight vessels, one is still left with the question of how one knows that one has activated the extraordinary vessels as opposed to some other aspect of the channel system. This question is particularly pertinent given the diffuse nature of the acupuncture methodologies presented in the *Exposition*. When we needle the 'straight yang' portion of the *yang qiao* at Support (BL-36), Bend Center (BL-40), Sinew Support (BL-56), Mountain Support (BL-57), or Taking Flight (BL-58), how do we know we are not just activating the bladder channel? The question of feedback is especially germane to extraordinary vessel therapies.

An amelioration of the symptoms we are attempting to treat is a good indicator that we have had some beneficial influence on the channel system, but it still does not tell us precisely how. Through which vector did the relief occur? Did a patient's chest pain improve after needling Inner Pass (PC-6) because of its influence on the pericardium channel or the *yin wei*? Far from clarifying matters, combining Inner Pass with Yellow Emperor (SP-4) merely adds another variable to the equation. By their very nature, extraordinary vessel presentations are complex and multifaceted. Each of the eight vessels casts its net broadly to encompass a wide spectrum of symptoms. When we combine these two holes, how do we really know that the efficacy of this combination has anything to do with the extraordinary vessels? Pulse diagnosis, a fundamental tool of Chinese medicine, bears directly on this question.<sup>10</sup>

Clinicians typically rely on changes in the strength and quality of the radial pulse to assess their influence on the channel system, but the degree to which the extraordinary vessels are reflected in the pulse is less clear. The majority of the extraordinary vessel pulses described by Li are derived from the *Pulse Classic*, and they occupy a prominent role in the overall structure of his discourse. This is a topic we will address in some depth in subsequent chapters on the pulse. For now, it is sufficient to understand that these pulses appear in both the *Pulse Classic* and *Exposition on the Eight Extraordinary Vessels* as constituents of clearly defined symptom-pulse-treatment complexes.

To be sure, when we attempt to influence the extraordinary vessels, we can reasonably expect to see some positive change in the pulse. The question is, how much and what should it look like? One problem posed by the extraordinary vessel pulses is whether they are applicable to other forms of extraordinary vessel acupuncture, or whether they are limited to the syndromes presented in the *Pulse Classic*. Li's descriptions of the extraordinary vessel pulses elsewhere in his writings suggest the former.<sup>11</sup> Curiously, this system of pulse diagnosis is much better represented in the herbal literature than in the acupuncture tradition, though it is prominent in neither. Case histories employing extraordinary vessel pulse diagnosis are few and far between, and they are almost completely absent from the premodern acupuncture literature. Moreover, we have not been able to document their premodern use in conjunction with the eight confluent holes. The application of the extraordinary vessel pulses in this context appears to be an entirely modern phenomenon.

In the past 50 years, Yoshio Manaka and Kazuto Miyawaki have identified patterns of abdominal tension and flaccidity reflecting extraordinary vessel imbalances. Administration of the proper pair of the eight confluence holes in the proper way will release abdominal tension in the associated diagnostic area.<sup>12</sup> In our experience, Manaka's extraordinary vessel treatments using ion-pumping cords are very effective for normalizing abdominal tension but are not particularly useful in balancing the pulse. Moreover, although each system is internally consistent, their respective abdominal maps often contradict one another. Such incongruities suggest that one system of treating the extraordinary vessels cannot necessarily be evaluated using the measures of another; each must be assessed on its own terms.

The acupuncture material in Li's book is inextricably bound to the pulse material. We may not fully understand what to do with the package he presents, but there is little doubt that he tied it together with considerable forethought. Separating one of its components from another clearly challenges the integrity of the whole. This is not to suggest that the pulse qualities described in *Exposition on the Eight Extraordinary Vessels* cannot or should not be applied in acupuncture or herbal practice outside their original scope of use, only that such innovations require a careful and critical assessment on the part of the clinician.

## Herbal Considerations

The application of extraordinary vessel strategies in the modern practice of herbal medicine has developed along a number of different lines, two of which will be discussed here. The simplest approach has been to identify individual medicinals as influencing specific extraordinary vessels. *Angelicae sinensis Radix* (*dang gui*), for instance, is believed to influence the *chong* vessel. The affiliation of individual herbs with the extraordinary vessels is well-established in the medical literature, and Li Shi-Zhen's *Comprehensive Outline of the Materia Medica* contains many such references. In that text, Li's primary source of information is Wang Hao-Gu (王好古, 1200–1308), an authority he also cites extensively in his *Exposition on the Eight Extraordinary Vessels*. Yet in attributing extraordinary vessel functions to specific drugs, Li was not simply parroting the opinions of others. He was himself the source of numerous statements linking the individual drugs to the extraordinary vessels, suggesting that he actively endorsed such a treatment approach. It is therefore curious that discussions of individual drugs are almost totally absent from his book on the extraordinary vessels themselves.

Another major approach to extraordinary vessel therapeutics has been to link entire formulas to the pathodynamics characteristic of each extraordinary vessel. As we have already mentioned, each extraordinary vessel is linked to one or more key identifying pathodynamic. Formulas that treat those pathodynamics are presumed to treat their associated extraordinary vessel. Cinnamon Twig Decoction (*gui zhi tang*), for instance, is known to treat disharmonies between the nutritive and protective layers, which are the province of the *yang wei* vessel. Hence, Cinnamon Twig Decoction (*gui zhi tang*) treats the *yang wei* (see Fig. E-1).

This strategy was probably pioneered by Zhang Yuan-Su (1151–1234), although it is most fully articulated in Li's *Exposition on the Eight Extraordinary Vessels*, which concerns itself almost exclusively with herbal formulas as opposed to individual drugs.

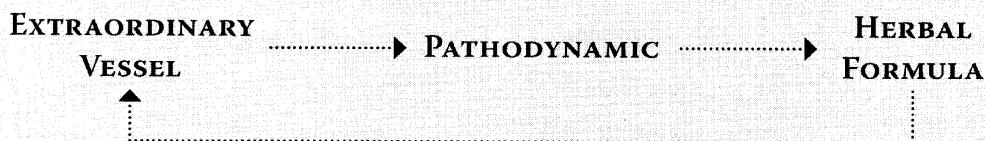


Fig. E-1 Relationship between extraordinary vessels and formulas

By and large, the drugs mentioned in Li's *Comprehensive Outline of the Materia Medica* as having an influence on the extraordinary vessels (see Table E-1 below) are not especially common in the herbal formulas cited in Li's *Exposition*. The formulas in the *Exposition* are not simply amalgams of individual drugs that have been attributed to the extraordinary vessels. They are extraordinary vessel formulas by virtue of their capacity to rectify certain key pathodynamics. For instance, although Cinnamon Twig Decoction (*gui zhi tang*) treats the diseases of the *yang wei*, Cinnamomi Ramulus (*gui zhi*) is not mentioned in the *Comprehensive Outline of the Materia Medica* as having any influence on this vessel at all. The only ingredient in that formula linked directly to the *yang wei* is Paeoniae Radix albae (*bai shao*).

With one notable exception that will be discussed later, Li's *Exposition* is concerned exclusively with the administration of compound formulas, not single ingredients. This is hardly surprising in light of the fact that most texts of its kind, at least since the time of Zhang Zhong-Jing (ca. 200 CE), have emphasized herbal formulas as opposed to individual drugs. Yet Li's prescriptions are notable for their emphasis on the pathodynamics underlying extraordinary vessel pathologies. For instance, according to Li's logic, any formula that treats counterflow, particularly if abdominal pain and stagnation are involved, may be considered a *chong* vessel formula.

Between his *Comprehensive Outline of the Materia Medica* and *Exposition on the Eight Extraordinary Vessels*, Li appears to have embraced both methods of extraordinary vessel treatment, stressing individual drugs in the former and compound prescriptions in the latter. Both share the same principles of application in that they must both be matched to the specific expression of any extraordinary vessel pathology. For instance, although Tonify the Middle and Augment the Qi Decoction (*bu zhong yi qi tang*) treats counterflow, it is only appropriate for *chong* pathologies presenting as heat arising out of spleen deficiency. Similarly, although Angelica Sinensis Radix (*dang gui*) treats counterflow and blood stagnation in the abdomen, it is too warming for many *chong* vessel disorders and should not be used indiscriminately. As always, the specific pathological presentation determines the choice of both individual ingredients and herbal formula.

Few of the physicians who subsequently adopted extraordinary vessel strategies in their herbal prescriptions (see Part IV) actually used the formulas recommended in the *Exposition*, yet its principles of practice are evident to one degree or another in nearly all of their case records. They recognized that the central message of the *Exposition's* herbal material was that simply addressing the specific expression of their core pathodynamics produced effective extraordinary vessel treatment strategies.

The 17th century master clinician Ye Tian-Shi (1665–1745) is by far the most accomplished exponent of this approach. Ye developed an extremely versatile range of methods to address extraordinary vessel pathologies. Although he built many of his extraordinary vessel prescriptions around established formulas, his emphasis on determining the appropriate treatment strategy for a particular presentation found its clearest expression in his choice of individual drugs. His case records have been

among the most influential medical writings of the past 300 years. That individual ingredients have largely eclipsed the importance of formulas in the subsequent development of extraordinary vessel therapies is due, at least in part, to Ye's approach to herbal prescriptions. In modern practice, it is the particular ingredients, and not the particular formulas, that determine extraordinary vessel therapies.

Although Ye's methods appear to have diverged greatly from Li's extraordinary vessel treatment, the versatility of his prescriptions clearly echoes Li's concern for the variety of ways in which eight vessel pathologies may present themselves. In this, even the modern predilection for writing extraordinary vessel prescriptions in terms of individual ingredients has its basis in the principles established by Li Shi-Zhen.

If the fundamental principles of using simple drugs in extraordinary vessel prescriptions are the same as those for selecting herbal formulas, and Li apparently subscribed to both methods, it is curious that he omitted individual drugs from nearly all of the *Exposition*. It may simply be that he believed he had already adequately addressed their role in extraordinary vessel treatment in *Comprehensive Outline of the Materia Medica*. Whatever his reasons, an emphasis on formulas as opposed to individual ingredients is nevertheless consistent with the larger themes of his book on the eight vessels. As already discussed, what differentiates an extraordinary vessel pattern from a primary channel or a visceral pattern is that eight vessel patterns almost invariably involve multiple systems. Extraordinary vessel pathologies are by their very nature complex and are expressed in multifaceted symptom presentations. Li's discussion of the eight vessels evidences a much greater concern for their overall pathodynamics than for any single sign or symptom. This predilection is similarly expressed in his herbal prescriptions where we again see intricate symptom presentations addressed under a common extraordinary vessel rubric directed at a root pathodynamic.

Where acupuncture treatment in the *Exposition* is centered on the trajectories of the extraordinary vessels, its herbal therapy is concerned primarily with their physiological and pathological characteristics. The influence of Cinnamon Twig Decoction (*gui zhi tang*) has little bearing on the trajectory of the *yang wei* per se, but it has a direct effect on one of its key symptoms, chills and fever. The links between formulas such as Ailanthus Decoction (*chun gen tang*) to the trajectory of the *chong* vessel are tenuous at best, yet this prescription exerts an unmistakable influence on the counterflow pathology characteristic of the *chong* vessel.

The integration of acupuncture, herbal, and alchemical perspectives is a central theme of Li's *Exposition*. By emphasizing herbal formulas over individual medicinals, Li further reinforces the integrative message of the book. The formulas themselves are emblematic of a perspective on the extraordinary vessels that engages them in the broadest possible context. For instance, Li recommends Cinnamon Twig Decoction (*gui zhi tang*), Ephedra Decoction (*ma huang tang*), and a modification of Minor Bupleurum [Decoction] (*xiao chai hu tang*) for *yang wei* disorders. All of these formulas treat chills and fever of one sort or another, but what makes them *yang wei* formulas is their capacity for harmonizing the protective and nutritive qi.

## Herbs Attributed to the Vessel

Aside from a few modifications of herbal formulas, the only discussion of individual herbs in the *Exposition* occurs in the chapter on diseases of the *du*. This apparent incongruity tells us as much about Li's overall understanding of *du* vessel pathology as it does about his approach to therapy. The *Exposition* attributes 11 medicinals to the *du*. These include Notopterygii Rhizoma seu Radix (*qiang huo*), Angelicae pubescentis Radix (*du huo*), Saposhnikovia Radix (*fang feng*), Schizonepetae Herba (*jing jie*), Asari Radix et Rhizoma (*xi xin*), Ligustici Rhizoma (*gao ben*), Coptidis Rhizoma (*huang lian*), Rhei Radix et Rhizoma (*da huang*), Aconiti Radix lateralis preparata (*fu zi*), Aconiti Radix (*wu tou*), and Xanthii Fructus (*cang er zi*). Li's criteria for inclusion in this list are not immediately clear. *Comprehensive Outline of the Materia Medica* mentions the *du* in association with some, but by no means all, of these herbs. A number of them, including Notopterygii Rhizoma seu Radix (*qiang huo*), Saposhnikovia Radix (*fang feng*), and Schizonepetae Herba (*jing jie*), are linked to the *du* only indirectly in a chapter of that book concerning wind spasm (*jing feng* 瘧風), which Li identifies in general terms as an affliction of the greater yang and *du* vessel. Coptidis Rhizoma (*huang lian*), Rhei Radix et Rhizoma (*da huang*), and Xanthii Fructus (*cang er zi*) do not appear to be affiliated at all with the *du* vessel in *Comprehensive Outline of the Materia Medica*.

More remarkable is the omission from this list of many other drugs that are explicitly identified in his *Comprehensive Outline of the Materia Medica* as influencing the *du*. They include animal products long associated with the *du* vessel such as tortoise, mutton, and the various preparations of deer antler, Cornu Cervi Pantotrichum (*lu rong*). One-hundred-and-forty years after the publication of *Comprehensive Outline of the Materia Medica*, Ye Gui, clearly influenced by this book, redefined extraordinary vessel therapeutics with his advocacy of essence-nourishing animal products such as those in his *Case Records as a Guide to Clinical Practice* (*Lin zheng zhi nan yi an* 臨證指南醫案, 1746). Yet Li has conspicuously avoided discussing this class of medicinals in his own *Exposition*.<sup>1</sup>

The *du* vessel is unique among the eight vessels in that its core pathodynamic is focused squarely on the trajectory of the vessel itself, which traverses the length of the spine. Li summarizes his understanding of the *du* with a line from the 29th Difficult Issue of the *Classic of Difficulties*: "When the *du* vessel becomes diseased, there is spinal rigidity and reversal." His interest in the therapeutic applications of both acupuncture and herbal medicine in treating this vessel is, for the most part, limited to musculoskeletal symptoms. In light of this, Li's list of herbs for the *du* vessel makes sense. Where Li's other extraordinary vessel formulas are keyed to the functional aspects of their associated vessel, his choice of herbs for the *du* vessel focuses on medicinals that have a localized effect along its trajectory traversing the head and spine. Coptidis Rhizoma (*huang lian*), Rhei Radix et Rhizoma (*da huang*), and Aconiti Radix lateralis preparata (*fu zi*) are not *du* vessel herbs per se, yet their relatively extreme thermic qualities may be interpreted as focusing the influence of the other medicinals

Drug	Disease treated	Chapter in <i>Comprehensive Outline of the Materia Medica</i>	Originally cited by
Astragali Radix ( <i>huang qi</i> )	Disease of the <i>yang wei</i> where the patient suffers from cold and fever	Astragali Radix ( <i>huang qi</i> )	Wang Hao-Gu
Paeoniae Radix alba ( <i>bai shao</i> )	Disease of the <i>yang wei</i> where the patient suffers from cold and fever	Paeoniae Radix Alba ( <i>bai shao</i> )	Wang Hao-Gu
Rehmannia Radix preparata ( <i>shu di huang</i> )	Lurking heat in the <i>chong</i> and <i>ren</i>	Menstrual disorders	
Lycii Fructus ( <i>gou qi zi</i> )	Debilitation of the <i>chong</i> and <i>ren</i>	Leukorrhea	
Testudinis Plastrum ( <i>gui ban</i> )	Diseases of the <i>du</i>	Testudinis Plastrum ( <i>gui ban</i> )	Li Shi-Zhen
Ovis Carnis ( <i>yang</i> )	Diseases of the <i>du</i>	Ovis Carnis ( <i>yang</i> )	Li Shi-Zhen
Ovis Carnis Spinae ( <i>yang ji gu</i> )	Diseases of the <i>du</i>	Ovis Carnis Spinae ( <i>yang ji gu</i> )	Li Shi-Zhen
Cervi Cornu pantotrichum ( <i>lu rong</i> )	Diseases of the <i>du</i>	Cervi Cornu pantotrichum ( <i>lu rong</i> )	Li Shi-Zhen
Notopterygii Rhizoma seu Radix ( <i>qiang huo</i> )	Diseases of the <i>du</i>	Indirectly mentioned under wind spasms	Li Shi-Zhen
Angelicae pubescentis Radix ( <i>du huo</i> )	Diseases of the <i>du</i>	Angelicae pubescentis Radix ( <i>du huo</i> )	Liu Wan-Su
Saposhnikovia Radix ( <i>fang feng</i> )	Diseases of the <i>du</i>	Indirectly mentioned under wind spasms	Li Shi-Zhen
Schizonepetae Herba ( <i>jing jie</i> )	Diseases of the <i>du</i>	Indirectly mentioned under wind spasms	Li Shi-Zhen
Asari Radix et Rhizoma ( <i>xi xin</i> )	Diseases of the <i>du</i>	Indirectly mentioned under wind spasms	Wang Hao-Gu
Ligustici Rhizoma ( <i>gao ben</i> )	Diseases of the <i>du</i>	Ligustici Rhizoma ( <i>gao ben</i> )	Wang Hao-Gu
Aconiti Radix lateralis preparata ( <i>fu zi</i> )	Diseases of the <i>du</i>	Aconiti Radix lateralis preparata ( <i>fu zi</i> )	Wang Hao-Gu
Aconti Radix ( <i>wu tou</i> )	Diseases of the <i>du</i>	Indirectly mentioned under wind spasms	Li Shi-Zhen
Xanthii Fructus ( <i>cang er zi</i> )	Diseases of the <i>du</i>	No mention of its association with the <i>du</i>	Li Shi-Zhen

**Table E-1** Drugs affiliated with the extraordinary vessels in  
*Comprehensive Outline of the Materia Medica*

in treating decidedly hot or cold conditions. The hot nature of *Aconiti Radix lateralis preparata* (*fu zi*), in particular, also functions to open the yang, a desirable quality in treating *du* vessel pathologies that are frequently characterized by stagnation and cold.

The near absence of supplementing medicinals from Li's list of *du* vessel herbs is amplified by the complete omission of any herbal recommendation for the *ren*. Li again sculpts his message as much by omission as inclusion. As far as the *Exposition* is concerned, *ren* and *du* pathologies characterized by deep debilitation of essence and source qi are not the province of herbal therapy. Although he acknowledges the role of the *ren* vessel in maturation and development, he suggests no treatment for problems of this nature. Similarly, Li's acupuncture recommendations for the *ren* and *du* avoid this level of treatment as well. For Li, this deepest level of extraordinary vessel function lies in the realm of alchemical techniques, not acupuncture or herbal medicine.

## Source Qi and Essence

Even though the *Exposition* offers little in the way of herbal therapy for deep pathologies of the *ren* and *du* vessels, the herbal strata of the book is by no means devoid of herbs that influence source or essence qi. On the contrary, the formulas in the *Exposition* contain many of the medicinals mentioned in Li's *Comprehensive Outline of the Materia Medica* as tonifying source qi and augmenting essence qi. Ginseng Radix (*ren shen*), Astragali Radix (*huang qi*), Cinnamomi Cortex (*rou gui*), *Aconiti Radix lateralis preparata* (*fu zi*), *Schizandrae Fructus* (*wu wei zi*), *Phellodendri Cortex* (*huang bai*), *Atractylodes macrocephelae Rhizoma* (*bai zhu*), and *Glycyrrhizae Radix* (*gan cao*) are among the common herbs identified by Li Shi-Zhen as tonifying the source qi. Those that specifically augment the essence qi include *Polygalae Radix* (*yuan zhi*), *Asari Radix et Rhizoma* (*xi xin*), *Rehmanniae Radix* (*sheng di*), *Ophiopogonis Radix* (*mai men dong*), *Acori tatarinowii Rhizoma* (*shi chang pu*), *Cinnamomi Cortex* (*rou gui*), *Magnolia officianalis Cortex* (*hou po*), and *Corni Fructus* (*shan yu rou*). Nearly every herbal formula in the *Exposition* contains one or more of these ingredients.

In reviewing Li's choice of extraordinary vessel herbal formulas and their constituents, it is evident that source qi plays an important, if background, role in his understanding of extraordinary vessel function. While acknowledging that an insufficiency of source qi may play a potential role in extraordinary vessel pathology, his attention remained focused on the immediate expression of the disease. This is in contrast to later physicians who chose to more directly tonify the eight vessels through the kidneys. The absence of animal products and cloying kidney tonics in his extraordinary vessel formulas is reminiscent of the treatment style of Li Dong-Yuan (李東垣, 1180–1251), who advocated the treatment of source qi through the postnatal qi of the stomach and spleen. Perhaps not surprisingly, Li Shi-Zhen's *Comprehensive Outline of the Materia Medica* contains a section devoted specifically to Li Dong-Yuan's use of medicinals according to symptom (*Li Dong-Yuan sui zheng yong yao fan li* 李東垣隨證用藥凡例).

## Expanding on Earlier Efforts and Categorizing Formulas

The arrangement of the herbal material in the *Exposition* is less than systematic in that Li links some form of herbal therapy to only six of the eight vessels. Notwithstanding the substantial potential for overlap in attributing herbal prescriptions to the extraordinary vessels, each formula mentioned in the *Exposition* is attributed to a single vessel. Prescriptions within each extraordinary vessel category are frequently further subdivided according to a variety of different schemes. Distinctions are made between *yin wei* prescriptions that address reverting yin patterns and those that address lesser yin patterns. Within each of these categories, formulas are described as addressing either cold or heat conditions. Similarly, some *yang wei* formulas are identified as treating greater yang conditions, while others address lesser yang conditions. More often than not, however, extraordinary vessel subcategorizations are implied rather than explicit. The *chong* vessel formulas in the *Exposition* are generally characterized by their treatment of counterflow conditions. They are further distinguished by the type of counterflow they address, and, for some, by the location of the aortic pulsing that they treat.

Where Li relied heavily on the authority of earlier sources for his acupuncture material, there are few sources in the herbal literature from which he could draw. Zhang Jie-Gu evidently wrote on the topic of the extraordinary vessels, but with the exception of the quotations that appear in the *Exposition*, Zhang's works concerning extraordinary vessel therapy have been lost. Another text that directly addresses the herbal treatment of the extraordinary vessels is Li Dong-Yuan's *Discussion of the Spleen and Stomach* (*Pi wei lun* 脾胃論), and Li Shi-Zhen also quotes extensively from this book. Li Dong-Yuan's attention to the relationship between the *chong* vessel, counterflow patterns, and the yang brightness channels is one reason why formulas for this vessel are so well represented in the *Exposition*. Unfortunately, Li Dong-Yuan's interest in the extraordinary vessels did not extend far beyond the *chong*. Aside from these authors, the literature appears to have provided Li Shi-Zhen with little material to reference.

Without an existing body of literature on the herbal treatment of the extraordinary vessels, Li was evidently compelled to identify his own set of extraordinary vessel formulas. Nevertheless, those few passages by Zhang Yuan-Su and Li Dong-Yuan provided Li Shi-Zhen with a well-established methodology for linking herbal formulas to the extraordinary vessels. It was Zhang Yuan-Su, referred to by Li Shi-Zhen as Zhang Jie-Gu, who associated Cinnamon Twig Decoction (*gui zhi tang*) with the *yang wei* by virtue of its capacity to regulate the protective and nutritive qi. Li Dong-Yuan used precisely the same reasoning in his discussion of *chong* vessel patterns. Li Shi-Zhen expanded this principle to include all the extraordinary vessels. He identified a fundamental set of pathodynamics associated with each vessel and selected herbal formulas that treated similar conditions

In prescribing herbal formulas for the extraordinary vessels, Li focused on their

most general pathological characteristics. Tonify the Middle and Augment the Qi Decoction (*bu zhong yi qi tang*) addresses a wide range of symptoms, but the characteristic that identifies this formula with the *chong* vessel is its fundamental capacity to treat counterflow. Li's attention to the broadest aspects of extraordinary vessel pathology allowed him to bring a wide range of sources to bear on herbal prescriptions. He found extraordinary vessel patterns and formulas in texts ranging from *Basic Questions* and Zhang Zhong-Jing's *Discussion of Cold Damage* to Sun Si-Miao's *Important Formulas Worth a Thousand Gold Pieces for any Emergency* and Chao Yuan-Fang's *Discussion of the Origins of the Symptoms of Disease*.

The distribution of herbal material throughout the *Exposition* is inconsistent. Despite the latitude that his broad perspective afforded him, Li was much more inclined to attribute herbal formulas to some vessels rather than others. Expanding on the precedents established by Li Dong-Yuan, Li Shi-Zhen identified 17 herbal formulas for the *chong* vessel. Though he acknowledged Zhang Yuan-Su's contribution of three formulas that address the *yin wei*, Li claimed that Zhang was too narrow in his vision and then went on to identify ten more prescriptions of his own. Li apparently had little to say regarding the herbal treatment of the *qiao* vessels, despite his interest in their relevance to interior alchemy and the wealth of *qiao*-related acupuncture material in the *Exposition*. Inexplicably, he mentions only one formula for the *yang qiao* and none at all for the *yin qiao*. Even more remarkable is his failure to mention even a single herbal formula influencing the *ren* vessel. This fact argues against interpreting the *Exposition* as primarily an herbal text.

## Extraordinary Vessel Formulas as Organizing Principles

An extraordinary vessel diagnosis does not eliminate the need for other, more specific diagnostic criteria. Most often, it is insufficient in and of itself to guide one to an effective treatment strategy. Because it does not eliminate the need to use standard diagnostic methods, it is reasonable to wonder why one should even bother with an extraordinary vessel perspective in formulating one's herbal prescriptions. It might be argued that such an approach is at best irrelevant and at worst only serves to muddy the diagnostic waters.

The strongest argument to be made for adopting an extraordinary vessel methodology in formulating herbal prescriptions is that it is a useful means of integrating all aspects of a treatment. When skillfully applied, the extraordinary vessel model holds the potential for simplifying one's approach to the patient, peeling away secondary and tertiary issues to expose the root of the problem. This approach to herbal medicine compels us to ask, "What is the overall pathodynamic at work in this patient?" Shao Lan Sun's (邵蘭蓀, 1855–1910) case record of his treatment of the *chong* vessel is a good example of this principle at work. A translation of a case of Shao's appears in Ch. 36 of Part IV.

To be sure, Li's presentation of herbal material pertaining to the extraordinary vessels is more successful in some areas than in others. It can, in many instances, be

