

Mume Pill (*wu mei wan* 烏梅丸): A Clinical History

Volker Scheid

Mume pill (*wu mei wan* 烏梅丸) is one of the more enigmatic prescriptions in the Chinese pharmacopoeia. We sense it may be important - after all, it is one of the main formulas for *jueyin* diseases in the *Shanghan lun* - but one look at its composition and indications convinces us that it is not that important, at least not for our patients. For how many of these present with vomiting up of worms as their main complaint? Modern textbooks extend the use of Mume Pill to the treatment all types of worm infestation. But biomedical drugs are more reliable and more convenient to take, especially for children who constitute the main category of patients for whom this use might be indicated in the West. Finally, Mume Pill's combination of very cold and bitter drugs (which easily injure the stomach) with very hot and acrid drugs (which easily injure *yin* and fluids) does not help to endear this formula to the average Western practitioner, who prefers supplementation over draining and avoids the use of harsh drugs.

These, at least, were my own feelings towards Mume Pill until in 1994 I met a young Chinese doctor from a small town in Liaoning Province. Unlike most of her peers, she worked in a hospital where no biomedical diagnostic and treatment facilities were available. This meant that even in serious conditions, where most modern doctors tend towards the use of Western medicine, she had to rely on Chinese medicine alone. Mume Pill was one of her most frequently used formulas and my interest was aroused. Reading through the case histories of famous past and contemporary physicians I quickly discovered that far from being a marginal formula banished to the back of textbooks, Mume Pill was at the forefront of many of these doctors' minds in the treatment of clinical problems ranging from diarrhoea, vomiting and abdominal pain to loss of consciousness and convulsions. What follows is a brief and personal re-evaluation of Mume Pill based on a wide reading of classical and contemporary sources and usage in my own practice.¹

Original Indications

Mume Pill is first mentioned in Section 338 of the *Shanghan lun*, the thirteenth section of the chapter on *jueyin* diseases.

"Cold damage [with] weak pulse [and] inversion. [If this condition] lasts seven or eight days the skin will be cold. The patient is restless without any periods of ease. This is visceral/organ/zang inversion, not thread-worm

inversion. In thread-worm inversion the patient should vomit up worms. Now as with this disease, the patient is quiet and then becomes irritable again, this is visceral/organ/zang cold where thread-worms ascend upwards entering the diaphragm causing irritability. At an instant [these symptoms] stop again, the patient has to eat but vomits [it up again]. When the patient becomes irritable again, [this is because] the thread-worms smell the food's odour which makes them come out. Such a patient will frequently and spontaneously vomit up thread-worms. Thread-worm inversion is mastered by Mume Pill which also masters long-term diarrhoea Fructus Pruni Mume (*wū méi*) 300 fruits, Herba cum Radice Asari (*xì xīn*) 6 liang, Rhizoma Zingiberis Officinalis (*gān jiāng*) 10 liang, Rhizoma Coptidis (*huáng lián*) 16 liang, Radix Angelicae Sinensis (*dāng guī*) 4 liang, Fructus Zanthoxyli Bungeani (*chuān jiāo*) 4 liang, Radix Lateralis Aconiti Carmichaeli Praeparata (*fù zǐ*) 6 liang blast-fried, Ramulus Cinnamomi Cassiae (*guì zhī*) 6 liang, Radix Ginseng (*rén shēn*) 6 liang, Cortex Phellodendri (*huáng bǎi*) 6 liang" ²

(Note: The "liang" used as a measurement is thought to be from 3-15g and probably is the latter)

Jeuyin and Ministerial fire

Apart from the composition of the formula, its preparation and indication, this text passage provides information about the basic cause of the pattern that the prescription treats. This is "cold storage" and implies that external cold has directly penetrated to the *jeuyin* level (as opposed to the penetration of heat from cold transformation). In order to understand the resulting pathology it is necessary to briefly review the functions of *jeuyin*.

The physiological functions of *jeuyin* can be summarized as constituting that aspect of space-time, in which the powers of *yin* attenuate and transform into *yang*.³ *Jeuyin* as the point of transformation from *yin* into *yang* is therefore sometimes compared to the leaf of a door (*he*). *Yin* must pass through this door in order to become *yang*. The concrete transformation of *yin* into *yang* accomplished by *jeuyin* in the human body must be placed in the context of the physiology of ministerial fire (*xiang huo*) and the circulation of basal *qi* (*yuan qi*).

According to contemporary Chinese textbooks ministerial fire is another name for the fire of the "Gate of Life" (*mìng mén*), which is also sometimes equated with kidney *yang*.⁴ It embodies the power or "fire" of *mìng mén* and in its subsequent circulation throughout the body functions as the foundation for as well as the expression of all physiological activity. Zhu Danxi, an influential writer on ministerial fire, has cogently described this dual aspect of basal *qi* in

relation to both its macrocosmic and microcosmic manifestations:

“Fire is *yin* inside and *yang* outside, [and] it unfolds in activity. Therefore, all activities pertain to fire.... Heaven unfolds in the generation of things, hence they are constantly active. As people also partake in this generation they also are constantly active. This constant activity is due to the minister fire.”⁵

Basal *qi* thus generated within the kidneys issues forth at the bladder. From there it begins its upward circulation throughout the body by way of the *shaoyang*. The power that drives this circulation, however, emanates from *jueyin*. Chen Jin'ao, a Qing dynasty physician, expressed this when he noted that "...all generated *yang qi* arises in the *jueyin* and there is nowhere in the entire body, high or low, which does not avail itself of this *qi*." ⁶

Without going into detail, we can briefly note that within *jueyin* liver can be considered as the power or motivating force that takes *yang* (ministerial fire, basal *qi*) out of the *yin* (kidneys, lower burner, Gate of Life) and distributes it all over the body. This corresponds to the physiological movement of liver *qi* from below to above. Pericardium, on the other hand, can be imagined as the moment of transition of the latent powers of *yin* into actual transformative activity. It is that aspect of space-time in which undifferentiated basal *qi* unfolds into concrete physiological function such as digestion or emotional self-expression. This corresponds to the physiological movement of pericardium blood from above to below.

The other important but difficult to grasp point is that function and structure are the same thing in Chinese medicine. Ministerial fire or basal *qi* is both the foundation for and the expression of physiological activity within the organism. Ministerial fire is *yang qi*, yet it also what *yang qi* does. *Jueyin*, likewise, is the physiological function that enables the transformation of undifferentiated basal *qi* into concrete and specific functions, yet liver and pericardium *yang* simultaneously are themselves manifestations of ministerial fire in the body.

The Mume Pill Pattern: *Jueyin qi* Aspect Cold Stasis

The Shanghan passage above indicates that Mume Pill is indicated for situations where external cold has penetrated directly into *jueyin* causing the movement of worms upward from the bowels into the area above the diaphragm in search of warmth and food. The more general symptomatology of such *jueyin* cold damage is described in Shanghan section 326:

“*Jueyin* illness [is characterised by] wasting thirst, *qi* rushing upwards, pain and heat in the heart, hunger but no desire to eat. In severe cases there is a spontaneous vomiting up of thread-worms and unstoppable diarrhoea.”⁷

This pattern is often referred to as “cold below, heat above” (*xia han shang re*). The Mume Pill pattern has two additional important symptoms. The first is *jue* or cold extremities indicating that *yang qi* is unable to penetrate to the extremities. The second is vomiting of thread-worms indicating a pre-existing infestation. Many physicians in the history of Chinese medicine associate parasite infestation with the presence of damp, specifically damp heat. We can thus interpret the infestation as an indication that there is a pre-existing weakness or disturbance of orthopathic *qi* in the middle burner aggravated by *jueyin* cold damage.

Most commentators identify a cold pathogen having penetrated into the lower *jiao*, where the liver is located, as responsible for the symptoms of cold below. The cold prevents ministerial fire from being transported to the extremities and middle, hence the symptoms of incessant diarrhoea and cold extremities. Commentators differ in their explanations of the heat above. Some argue it should be seen as extreme *yin* turning into *yang* or as the separation of *yin* and *yang*. Others see it as *shaoyang qi* stagnation engendering heat. Yet others see it as a kind of empty heat.

My personal opinion is to define Mume Pill Pattern as *jueyin qi* aspect cold stasis that leads to damp heat accumulation. *Jueyin* cold stasis is not depletion but a condition of constraint. Unlike the better-known condition of liver *qi* constraint, what is constraint here is liver *yang* or ministerial fire. This manifests in the simultaneous presence of cold *yin*-type symptoms and signs caused by a failure of ministerial fire to carry out its transformative functions, and hot *yang*-type symptoms indicating the presence of local heat accumulation. Because the spleen is dependent on ministerial fire for carrying out its functions of transportation and transformation, *jueyin* cold stasis will ultimately be reflected in symptoms of spleen transportation and transformation failure like diarrhoea and cold extremities. The simultaneous presence of damp-heat is due to food not being rotted and ripened properly in the stomach. Because food is not transformed into essence, there will be hunger, but because spleen assimilation is impaired there is no desire for food. The symptom of “pain and heat in the heart” is an ancient way of referring to burning pain in the epigastric region and thus confirms this analysis. Inversion of *qi*, finally, is a manifestation of liver being unable to control the smooth ascending of *qi* from below to above.

Mume Pill: Analyses of its Composition and Later Usage

The composition of Mume Pill clearly addresses the symptomatology of “heat above, cold below” as a *qi* aspect cold stasis pattern. On the most simplistic level of analysis, the formula is made up of four groups of drugs.

- The first group of drugs (consisting of Herba cum Radice Asari (*xì xīn*), Rhizoma Zingiberis Officinalis (*gān jiāng*), Fructus Zanthoxyli Bungeani (*chuān jiāo*), Ramulus Cinnamomi Cassiae (*guì zhī*) and Radix Lateralis Aconiti Carmichaeli Praeparata (*fù zǐ*)) warms and moves liver *yang* and ministerial fire. The numerical preponderance of these drugs marks cold stasis as the primary causative factor. Taken together these drugs mobilise and move all aspects of the distribution of ministerial fire by liver *yang*, propelling it from the lower to the middle and upper *jiao* and from the inside to the outside.
- The second group of drugs (consisting of Rhizoma Coptidis (*huáng lián*) and Cortex Phellodendri (*huáng bǎi*)) clears and drains *qi* aspect damp-heat. As the accumulated stasis heat is of an excess type, cold bitter heat draining drugs are employed. Rhizoma Coptidis (*huáng lián*) drains heat from the stomach and pericardium, the upper and middle burners, while Cortex Phellodendri (*huáng bǎi*) clears heat that may accumulate as a result of stasis in the lower burner.
- The third group of drugs (consisting of Radix Angelicae Sinensis (*dāng guī*) and Radix Ginseng (*rén shēn*)) supplements and harmonises *qi* and blood to replenish the *qi* lost in the course of the illness and its treatment. Some commentators include Angelicae Sinensis (*dāng guī*) in the drugs of the first group and argue that, essentially, it warms and mobilizes liver blood.
- Fructus Pruni Mume (*wū méi*), as the main drug, effectively treats threadworm infestation. It is also sour, the taste associated with wood-liver, which is said to guide the entire formula into the *juéyin* aspect. This sourness guarantees that once *yang* constraint is resolved ministerial fire is released in a controlled manner and does not transform into uncontrolled liver *yang* or liver fire.

There exist many other analyses of the formula’s composition. Some doctors, for instance, interpret Mume Pill as a variation of *Bàn xià xiè xīn tāng*, while others see it as a combination of *Dāng guǐ sì ní tāng* and *Sì ní sǎn*. There is insufficient space to discuss all these in detail. By examining the basic mode of action we can, however, gain an understanding of how later Chinese physicians extended the usage of the formula.

First, we should interpret the use of the acrid warm drugs in the formula not as primarily dispelling cold but as boosting liver's *yang* function of moving minister fire and thereby as moving liver *yang* itself. Second, the cold bitter heat draining drugs can be seen to assist the warm acrid drugs in opening up normal *qi* circulation by draining repletion heat from all three burners and specifically from *jueyin* and *yangming*. The use of the sour drug Fructus Pruni Mume (*wū méi*) ensures, on the one hand, that stimulation of liver *yang* is checked and all uncontrolled *qi* redirected into the physiological *qi* mechanism. On the other hand, it conserves *yangming yin* and ensures that fluids are not excessively damaged in spite of moving and draining. This combined use of sour, acrid and bitter drugs is defined by many physicians as the basic treatment strategy for the movement and harmonization of liver *qi* and *yang*.

Radix Ginseng (*rén shēn*) and Radix Angelicae Sinensis (*dāng guī*) further supplement *qi* and fluids, *ying* and *wei*. They strengthen middle *jiao yin* and *yang* and order the *chong mai*, thus backing up the main treatment strategy but attending to the background connections (physiologically, anatomically) between the various substances, organs and channels involved in the disorder.

We can therefore define the basic pattern treated by Mume Pill as one of *jueyin qi* aspect stasis and accumulation of heat and disordering of the *qi* mechanism within both *jueyin* and *yangming*. Cold damage is one possible proximal cause of this pattern. In this case the ascending leg of *jueyin qi* circulation is primarily blocked. Primary blockage in the descending leg due to liver *qi* repletion or disordered unfoldment of liver *yang*, both of which disturb normal circulation of *qi* within *jueyin* and *yangming* and even depletion or heat in the *jueyin* blood aspect are other possibilities.

At first sight, the use of acrid warming drugs in such cases appears inappropriate. If there is already an excess of liver *qi*, will not the use of such drugs further aggravate its unordered circulation? If we think of *qi* circulation as what it is, a circulation, then this strategy begins to appear as no less unreasonable, however, than the clearing of heat in the case of cold stasis. In the latter case one has to clear heat produced by *qi* stasis. In the former case, acrid drugs help to move and order liver *qi* *after* one has cleared its excess with bitter heat draining drugs and ordered it with sour drugs. One would, however, adjust the composition of the formula to allow for this change of causation by reducing the number and dosage of acrid warming drugs, and increasing that of bitter cold drugs, or by adding additional sour, sweet or *yin* supplementing drugs such as Radix Paeoniae *Lactiflorae* (*bái sháo*), Herba Dendrobii (*shí hú*), Radix Rehmanniae Glutinosae (*shēng dì huáng*).

Based on an overview of the literature the key symptoms for the extended use of Mume Pill thus are:

- Diarrhoea, soft stools or constipation indication blocked passage of *qi* in the *yangming* due to liver *qi* stagnation
- Cold extremities or cold feet and hot hands also indicating liver *qi* stagnation with ministerial fire unable to penetrate to the periphery
- Vomiting or other signs of inversion of *qi* in *yangming* or pericardium such as chest pain, dry retching, throat obstruction, inability to eat in spite of hunger
- A tongue with a yellow, greasy and dry coating in the centre and with little or white coating at the sides. If treatment is successful the yellow coat should disappear first as a sign that the stagnation is being removed.
- A wiry, replete and perhaps deep pulse.

The pattern must be differentiated from other middle jiao repletion patterns not involving *jueyin* such as *Xiè xīn tāng* patterns. This can be done by ascertaining that there are no pointers to any kind of liver involvement such as association of symptoms with irritability, planning and decision making, green facial complexion and so on. It must also be differentiated from *shaoyang qi* aspect depression patterns treated by *Chái hú tāng* formulas and from liver depletion patterns causing stagnation treated by formulas such as *Xiāo yáo sǎn*. It must also be differentiated further from *qi* stagnation patterns where the primary emphasis is on the treatment of *qi* rather than on a particular organ's transformation of *qi*, even if such *qi* stasis reflects onto the function of specific organs. *Jué yù wán* or *Sì mō wán* are typical formulas to treat such patterns. Following the guiding symptoms outlined above such differentiation should not be too difficult.

Once the basic pathomechanism and treatment principle has been firmly grasped, all kinds of further variations of the formula are possible. Most of these are based on its use as a decoction rather than as a pill. The contemporary physician Su Baoying, for instance, uses the standard formula to treat complicated hot cold patterns and makes the following additions and subtractions according to presentation.

- If stasis leads to constipation rather than diarrhoea replace Cortex Phellodendri (*huáng bǎi*) with *Rhei Radix et Rhizoma* (*dà huáng*)
- In case of fever (i.e. *shaoyang* stagnation) add Radix Bupleuri (*chái hú*) and

Radix Scutellariae Baicalensis (*huáng qín*)

- If the tongue has not white coating at the side replace Radix Lateralis Aconiti Carmichaeli Praeparata (*fù zǐ*), Cortex Cinnamomi Cassiae (*ròu guǐ*) and Herba cum Radice Asari (*xì xīn*) with Herba Artemisiae *yinchenhao* (*yīn chén hāo*) and Fructus Gardeniae Jasminoidis (*zhī zǐ*)
- If the white coating is very thick or extended replace Cortex Phellodendri (*huáng bǎi*) with Fructus Evodiae Rutaecarpae (*wú zhū yú*) and increase the dosage of Radix Lateralis Aconiti Carmichaeli Praeparata (*fù zǐ*) and Rhizoma Zingiberis Officinalis (*gān jiāng*)

The Qing Dynasty physician Ye Tianshi used Mume Pill in an extremely flexible manner drawing on its main treatment mechanism rather than the formula itself. The following are some examples:

- In a case of liver repletion attacking the stomach with diarrhoea, throat obstruction and vomiting and a wiry pulse he replaced Cortex Phellodendri (*huáng bǎi*), Ramulus Cinnamomi Cassiae (*guì zhī*), Radix Lateralis Aconiti Carmichaeli Praeparata (*fù zǐ*), Herba cum Radice Asari (*xì xīn*) and Radix Ginseng (*rén shēn*) with Fructus Meliae Toosendan (*chuān liàn zǐ*) and Radix Paeoniae Lactiflorae (*bái sháo*).
- In a case of stomach *yang* depletion with liver *qi* invading *yangming* characterised by vomiting of frothy sputum or clear fluid, superficial oedema, borborygmus and abdominal pain and threatened loss of consciousness he used a variation composed of Radix Ginseng (*rén shēn*), Sclerotium Poriae Cocos (*fú líng*), Fructus Zanthoxyli Bungeani (*chuān jiāo*), Rhizoma Zingiberis Officinalis (*gān jiāng*), Pericarpium Citri Reticulatae (*chén pí*), Fructus Pruni Mume (*wū méi*) and Radix Paeoniae Lactiflorae (*bái sháo*).
- In a case of wasting thirst with dry retching, inversion of stomach *qi*, restlessness, diarrhoea, heat and cold and a bright red tongue he used a variation composed of Fructus Pruni Mume (*wū méi*), Radix Ginseng (*rén shēn*), Rhizoma Coptidis (*huáng lián*), Tuber Ophiopogonis Japonici (*mài mén dōng*), Gelatinum Corii Asini (*ē jiāo*) and Radix Rehmanniae Glutinosae (*shēng dì huáng*).

Personal Experience

I have successfully used Mume Pill in my own practice following the above

guidelines. The following is a typical case.

The patient was a woman in her mid-thirties complaining of continuous belching, occasional vomiting, a bitter taste and diarrhoea with foul-smelling stools for over a year. She had a history of bulimia and was an unreformed workaholic, running a private printing business on top of looking after two children, being responsible for a big house and involvement in her husband's business. This required her to work late into the night with little sleep. She felt tired and exhausted most of the time but never failed to do everything she set out to achieve. When asked why she worked so much she said that it was difficult for her to know what she really wanted, that she could never say no if someone asked her a favour, and that she was never really happy because she never really did what she wanted to do herself. In spite of her personal history and the current demands on her energy, she looked very young. Her pulse was strong and wiry, slippery on the right *guan* position and her tongue was red with a thin greasy yellow fur in the middle. She also indicated that she suffered from frequent sinus infections and that she was prone to migraines with one or two attacks per week. Upon questioning she said her feet very always cold, but that her face easily flushed up.

My diagnosis was one of Mume Pattern. Tongue, pulse and her relative vitality all marked this as a repletion pattern. Taken together the symptoms and signs indicate *jueyin qi* aspect repletion stasis with *yangming* heat and phlegm accumulation. Heat is predominant and cold is secondary. The inability to say no in conjunction with the cold legs also indicate, however, insufficient spreading of ministerial fire by liver *yang*. Based on this analysis I gave her a variation of Mume Pill in which Radix Lateralis Aconiti Carmichaeli Praeparata (*fù zǐ*), Ramulus Cinnamomi Cassiae (*guì zhī*) and Herba cum Radice Asari (*xì xīn*) were replaced with Fructus Meliae Toosendan (*chuān liàn zǐ*), Rhizoma Corydalis Yanhusuo (*yán hú suǒ*), Radix Paeoniae Lactiflorae (*bái sháo*) and Fructus Trichosanthis (*guā lóu*).

After one week the patient returned and indicated that all major symptoms had improved. The phlegm was visibly reduced and she had had no headaches. Most amazing to her was the fact that she had been able to say no to one of her friends. She took two more weeks supply of a slightly altered formula and has been well since.

Conclusion

This short clinical history has merely touched the surface of the large literature on Mume Pill available in original Chinese texts. My intention was to show that engagement with that literature can lead to a deepened understanding of both

pathophysiology and the pharmacopoeia, resulting in improved clinical results.

¹Given the nature of this article these sources will not all be cited in this article, which is conceived as a personal account rather than a scholarly monograph.

²Shanghan lun (Tang Dynasty Edition by Cheng Wuji). Reprinted in Qian Shaojin, “Shanghan lun wenzai tongkao”, Xueyuan chubanshe, Beijing, 1993, pp. 332-3.

³The divergences and overlaps between “six channel” (*liù jīng*) and “visceral system” (*zàngfū*) theories in Chinese medicine is too complex to discuss at this point. For an overview of relevant discussions see Li Peisheng & Liu Duzhou (1987), 7-8.

⁴Although this simplifies a much more complex set of relations, we can nevertheless use it - for the moment at least- as an adequate basis for understanding liver *yang*'s physiological function. The famous Ming scholar-physician Zhang Jiebin, whose theories had a major impact on the content of the curricula of contemporary Chinese medical colleges, for instance, stated explicitly that: “There are two kidneys, which are not both kidney. The left is the kidney, the right is *mìng mén*.” He also argued that *mìng mén* constitutes the “sea of *qi* and blood”, the “foundation of the five *zàng* and the six *fū*” and the “root of the *yuán qì*” - views that make *mìng mén* a structure/function prior to the *zàng* and not an aspect of them Zhang Jiebin. *Jingyue quanshu* (Collected Treatises of [Zhang] Jingyue). Xiao Lixun (chief ed). Beijing: Renmin weisheng chubanshe, 1991 [1637].

Part of the problem for Chinese physicians is the fact that starting with the *Neijing*, the canonical literature lists various types of fire which occur within the body or affect it from the outside. Besides minister and *mìng mén* fire, we thus find a “lesser fire” (*shǎo huǒ*), a “vigorous fire” (*zhuàng huǒ*), heat (*rè*), (summer-)heat (*shū*), as well as various types of *zàngfū* fire, vacuity and repletion fire, etc. The precise nature of the various types of fire and their relation to each other are nowhere clearly defined and have been a hotly debated topic in the history of Chinese medicine. The *Er huǒ biàn wàn* (“The Absurd Differentiation Between the Two Fires”) is a classical contribution to this debate which contains extensive citations from and discussions of classical sources.

⁵Zhu Danxi. *Gé zhì yú lùn* (Inquiry into the Propensities of Things).” In *Dānxī yī jí* ([Zhu] Danxi's Collected Medical Works). Ed. Zhezhiang Province Academy of Chinese Medicine Literature Research Institute. Beijing: Renminweisheng chubanshe, 1993 [1347]. 3-44, lùn 17, 38.

⁶Chen Jin'ao. *Zá bìng yuán liú xí zhú* (Wonderous Lantern for Peering into the

Origins of Miscellaneous Disorders). Beijing: Zhongguo zhongyiyao chubanshe, 1994 [1773]. juan 10, 153.

⁷ Shanghan lun (Tang Dynasty Edition by Cheng Wuji). Reprinted in Qian Shaojin, “Shanghan lun wenzai tongkao”, Xueyuan chubanshe, Beijing, 1993, pp. 328.