

To our modern sensibilities, it might seem odd to associate yang repletion in the brain causing tinnitus, mania/epilepsy, insomnia and unilateral withering with disorders of the Greater Yang urinary bladder channel. Today, this pathology is almost exclusively associated with kidney yin depletion and subsequent liver yang rising. However, during the Han dynasty (and up until the late Qing dynasty), the association of the Greater Yang urinary bladder channel with these diseases was entirely consistent with clinical practice. Most notably, the primary formula in the *Golden Cabinet* for treating 風癱 (wind disablement, wind-strike hemilateral withering), a disease with manifestations similar to epilepsy and unilateral withering, was Xu Ming Tang (續命湯), which contains the following herbs:

麻黃、桂枝、當歸、人參、石膏、乾姜、甘草各三兩，芎藭，杏仁四十枚。

Ma Huang, Gui Zhi, Dang Gui, Ren Shen, Shi Gao, Gan Jiang, Gan Cao (all three liang⁴⁴), Chuan Xiong, Xing Ren 40 pieces.

右九味，以水一斗，煮取四升，當小汗，薄覆脊，憑几坐，汗出則愈。不汗更服，無所禁，勿當風。并治但伏不得臥，欬逆上氣，面目浮腫。

Boil these nine herbs in one dou (dipper) of water until four sheng remain.⁴⁵ After ingesting, a light sweat should be produced. Cover the back with a thin blanket and rest against an armrest. After breaking a sweat, the illness will resolve. If sweating is not induced, it is acceptable to take

⁴⁴ During the Eastern Han dynasty, 1 liang was equal to 13.8 g.

⁴⁵ In the Han dynasty, 1 dou or “dipper” was equal to 10 sheng. 1 sheng was equal to roughly 200 ml. So, 1 dou would be equal to 2,000 ml or 2 liters. Thus, in this case, they would boil 2 liters down to 800 ml.

another dose. Do not expose yourself to wind. Also treats cough and counterflow, swelling of the face and eyes and inability to lie prone.

From the composition of the formula (a Ma Huang Tang or Da Qing Long Tang modification) and the target of treatment (similar to most formulas in the Ma Huang/Gui Zhi formula series), Xu Ming Tang is clearly targeted towards a Greater Yang pathology. In a discussion of a case study in which the great clinical maestro Dr. Li Ke of Shanxi province used Ma Huang Tang to treat a patient's subarachnoid hemorrhage, he describes the mechanism of action as such:

從本案的病機看，由於寒襲太陽之表，玄府閉塞，寒邪郁勃於內，氣機逆亂上沖。邪無出路，遂致攻腦、攻目。邪之來路，即邪之出路，隨著汗出，表閉一開，邪從外散，肺氣得宣，水道得通，小便得利，郁結於大腦及眼底之瘀血、水腫亦隨之而去，腦壓迅速復常。⁴⁶

The mechanism in this case is as follows: cold attacks Greater Yang's surface, the pores close and cold qi causes depressed struggle within, which leads to qi counterflow surging upwards. Bound by cold and thus with no outward effusing route, qi attacks the brain and eye. The path of entry of external evil is precisely the path of expulsion. After sweating, the pore closure in the exterior is unblocked and cold dissipates and effuses through the opened surface. As a result, lung qi effuses, the water channels are freed and urine is disinhibited, the stagnation and swelling in the brain and eye are relieved and pressure in the brain rapidly returns to normal.

⁴⁶ Li Ke, "Some reflections inspired by a case of subarachnoid hemorrhage with concurrent sudden blindness cured with Ma Huang Tang." *Traditional Chinese Medicine Journal*, 2008, 2 (李可。从麻黄汤治愈蛛网膜下腔出血并发暴盲案引发的思考。中醫藥通報2008年02期)。

Unimpeded ying and wei qi disperse from the interior to the exterior, cycling out into the extremes of the body – the extremities, the skin and the brain - before recirculating inward. If this pathway is inhibited, ying and wei qi counterflow upwards or stagnate within the high collecting point of the brain and eye causing epilepsy, unilateral wasting, tinnitus and other diseases of upward repletion.⁴⁷ Indeed, this exact pathomechanism is detailed in the *Treatise on Cold Damage*:

太陽病，脈浮緊，無汗，發熱，身疼痛，八九日不解，表證仍在，此當發其汗。服藥已微除，其人發煩目暝，劇者必衄，衄乃解。所以然者，陽氣重故也。麻黃湯主之。

When in Greater Yang phase disease, the pulse is floating and tight, and there lack of sweating, heat effusion and body pain which does not resolve after 8–9 days, the sweating method should be used as a surface pattern is still evident. If after using the sweating method, there is some improvement but subsequently the patient becomes agitated and there is dimness of vision, in serious cases this will almost always result in epistaxis. When epistaxis occurs, the illness will subside. This is due to a superabundance of yang qi. Use Ma Huang Tang.

Huang Yuanyu states:

若衛氣閉塞，泄之不透，服藥之後，病僅微除，其人猶覺煩躁昏暈，未能全解，劇者衛鬱升，必至鼻衄，衄乃盡解，所以然者，泄之不透，服藥之後，病僅微除，其人猶覺煩躁昏暈，未能全解，劇者衛鬱升，必至鼻衄，衄

⁴⁷ This counterflow mechanism is also present in other Greater Yang pathologies. For instance: “Surging headache”, “bulging eyes”, “mania” are all listed in *Spiritual Pivot* Ch. 10 as indication for Foot Greater Yang.

乃盡解，所以然者，久病失解陽氣之鬱過太重故也。

If wei qi is blocked and cannot effuse through sweating, and even after the first dose, the illness does not resolve but manifests with agitation and vertigo, in extreme cases depressed wei ascends and leads to epistaxis, after which the illness resolves. What precipitates the epistaxis? This is due to extreme depression of yang qi in the course of a chronic illness.

Cao Yingfu further articulates how this pathology represents a repletion within the brain:

熱必上衝於心而發煩。上衝於腦而目為之暝。甚為顱骨為開。血從骨縫中溢出。從關上下走鼻孔。是為衄。

Heat surges up to the heart causing vexation and up to the brain causing dimness in the eyes. In extreme cases, [the upward repletion is so strong that] the cranium splits open and blood spills through cracks, passing into the nose and leading to epistaxis.

Here the stagnation of wei qi in the yang phase leads to repletion in the brain which is only resolved once blood leaks from the cranial orifice. This is a case in which the body's own healing mechanism closely mirrors the mechanism of action in treatments using the Yang Qiao vessel. Just as bleeding from the nose relieves yang repletion within the cranium, thereby resolving the yin-yang imbalance, bleeding at Shen Mai (BL-62, 申脈) drains yang repletion from the brain via the Yang Qiao collateral, which directly interfaces with the extra-channel cranial space. The herbal approach to this pathology is to resolve the exterior, thereby restoring the normal flow of ying-wei. The acupuncture approach is to directly drain yang repletion from the brain via Yang Qiao, its main collateral.

The Qing dynasty physician, and one of the most impressive scholars of the eight extras in the history of China, Shen Jinao (沈金鰲), maintained that draining repletion above due to exterior contraction via exterior resolving herbs was indeed an herbal equivalent of needling the Yang Qiao vessels:

癲癇 專取二蹻治之，亦屬徑路可尋，其法，以畫作者為陽蹻（宜升陽湯）。

In case of epilepsy, treating by only utilizing the two Qiao vessels is another viable option. Regarding its method, for epilepsy occurring during the day, use Sheng Yang Tang (Yang Upbearing Decoction) to treat the Yang Qiao vessel.

升陽湯 [陽蹻] 連節麻黃 防風(各八錢) 蒼朮(一兩半) 炙甘草(五錢) 空心服。

Sheng Yang Tang: (Yang Qiao) Ma Huang, Fang Feng (8 qian each), Cang Zhu (1.5 liang), Zhi Gan Cao (5 qian) take on empty stomach.⁴⁸

Notably, Sheng Yang Tang uses the exterior resolving herbs Ma Huang and Fang Feng. Cang Zhu, especially when used at a high dosage like in this formula, also has diaphoretic effects similar to ma huang. Thus, though modern commentators may associate epilepsy and other upward yang repletion diseases with liver yang rising, this was actually a fairly recent theoretical innovation, one that has been challenged successfully by Li Ke and his cohort within the past twenty years.⁴⁹ In reality, for the majority of the

⁴⁸ In the Qing dynasty, 1 liang was equal to 36.9 g. 1 qian was equal to 3.69 g.

⁴⁹ For background on this development please see the author's article, "Xiao Xu Ming Tang and the Battle over Wind-like Strike in 20th and Early 21st Century Chinese Medicine."

history of Chinese medicine, these diseases were most intimately associated with Greater Yang pathologies.

Even in modern times, we can still see practitioners making a direct connection between the Greater Yang channel, the brain and diseases such as insomnia. For instance, the Chengdu master clinician Lu Chonghan (盧崇漢) details the following case in *A Compendium of the Clinical Experience of the Lu Family Lineage* (盧氏臨證實驗錄):

王某某，男，22歲。病狀：腦昏，耳鳴，失眠，飲食欠佳。天將明時約四五點，有夢遺精，每周二次。診斷：此病系相火不足，內有風淫凝聚，阻礙一陽之氣，使膀胱之氣化不宣，傷精傷髓，波及頭腦。腦又受風，被風所擾，神智不靈，故有神昏健忘之情態。治宜先從引通入手，使清濁分明，而陽升陰降，上下可交通。

Wang, Male, 22 years old. Symptoms: brain fog (clouded brain), tinnitus, insomnia, poor appetite. Around twice a week at 4–5 am, right before sunrise, patient experiences dream emission.

Diagnosis: This is due to insufficient ministerial fire and inwardly invading wind evil which congeals and blocks the effusion of original yang qi⁵⁰, such that urinary bladder qi transformation cannot effuse, harming the essence and marrow, which effects the brain. The brain has also been afflicted by wind, which assails the spirit and causes poor

⁵⁰ The phrase in Chinese is “一陽之氣” meaning literally the “qi of the first yang.” Typically this phrase refers to Lesser Yang, but this interpretation seems unfitting given the context. The Lu family makes abundant use of *Book of Changes* theory in their analysis, so it is possible that the “first” or “one” here refers to the connection between one and “north”, “water”, “the kidneys” and other related concepts, as in “the one of heaven engenders water (天一生水)”, prevalent in the *Book of Changes*. We have decided to translate the phrase as original yang to highlight the connection between “first yang” and the kidneys.

memory and brain fog.

Treatment should focus on unblocking outwards and separating the clear from the turbid, so that yang rises, yin descends and the above and below are able to communicate and interact.

In this case, unlike the replete cases discussed above, Greater Yang urinary bladder qi transformation is blocked and deficient. This causes wei qi to be unable to effuse outward into the skin and the high collecting field of the brain. Bereft of wei qi, the brain is assailed by wind evil, causing a whole host of symptoms. Unlike most mainstream practitioners in modern times, Lu does not use yin supplementing or liver pacifying medicinals to treat the insomnia and tinnitus, but rather uses Sha Ren, Shi Chang Pu and Gua Lou to unblock the middle, allowing qi to flow upwards and downwards and Sheng Jiang and Cong Bai to powerfully effuse wei qi out into the vast collecting zones of the skin and brain, driving away the wind evil and restoring normal circulation.

These cases represent a clinical application of the idea developed above that the cranial space, as well as the eyes, ears and nose are high collecting points and critical sites of interchange between intra-channel ying qi and the extra channel wei field. As such, diseases of external contracture effect the eyes, ears, nose and brain because they create stagnation in areas of transition between ying and wei qi, which these intra-cranial spaces embody. Zhang Zhicong expresses this idea as such:

根結是也。根者。經氣相合而始生”結者。經氣相將而歸
結於命門蔥籠之間。複從此而出於氣街。走空竅而仍行
於脈外也 目竅。乃經氣所出之門也。頰大者。頰頰
也。在上之中。兩耳之間 蔥籠者。耳中也。如蔥之