huáng tāng) cannot be used [again]. If after profuse sweating the pulse is flooding and large and there is intense irritability and thirst, then the yang pathogen has sunk internally. This is not a case of exhausted yang from excessive sweating.

In this case the profuse sweating has not yet stopped, but there are no internal [signs of] irritability or thirst, so the disease is still in the exterior. The Cinnamon Twig Decoction (guì zhī tāng) presentation is not yet finished so it should still be given to take advantage of its propensity to sweat it out once again. When the sweat spontaneously emerges, the pathogen will not tarry. This method can be used to induce sweating. Sweat is generated from foodstuffs [in the stomach] and [building up the stomach qi] can also be used to stop sweating, as when the essence [built up from food] is ascendant, the pathogen departs. Not using this method allows the wind and cold to take advantage of the sweat and reside in the pores [lit. "dark convergences"44] so [the patient] must have chills and fever again similar to malarial conditions. However, malarial [conditions] have a certain periodicity and do not occur twice in a day. Here because the wind qi lodges in its place [the attacks] do indeed occur twice in a day. It is necessary to double the Cinnamon Twig Decoction (guì zhī tāng) to release the muscle layer and add a little bit of Ephedra Decoction (má huáng tāng) to open up the exterior.

# Discussion

Three formulas can be compared for their ability to induce sweating. Ephedra Decoction (má huáng tāng) is very strong and leads to significant sweating. Half Cinnamon Twig and Half Ephedra Decoction (guì zhī má huáng gè bàn tāng) is relatively moderate and induces a mild sweat. Two-Parts Cinnamon Twig Decoction with One-Part Ephedra Decoction (guì zhī èr má huáng yī tāng) only induces a very slight sweat. These differences are very useful in the clinic.

# $\P 26$

服桂枝湯,大汗出後,大煩渴不解, 脈洪大者,白虎加人參湯主之。

Translation: If profuse sweating occurs after taking

Cinnamon Twig Decoction (guì zhī tāng) with intense irritability and thirst without resolution, and the pulse is flooding and large, White Tiger plus Ginseng Decoction (bái hǔ jiā rén shēn tāng) masters it.

EXPLANATION: If profuse sweating develops after taking Cinnamon Twig Decoction (guì zhī tāng), the fluids can be seriously depleted. This leads to the disease shifting to the yáng míng. Intense irritability and thirst without resolution is a sign of intense interior heat, as is a flooding and large pulse. White Tiger plus Ginseng Decoction (bái hǔ jiā rén shēn tāng) is used because it clears heat, especially from the yáng míng, and generates fluids.

# **FORMULA**

白虎加人参湯方:

知母六兩 石膏一斤,碎,綿裹 甘草二兩,炙粳米六合 人參三兩右五味,以水一門,煮米熟,湯成去滓, 溫服一升,日三服。

White Tiger plus Ginseng Decoction (bái hǔ jiā rén shēn tāng)	ı	
Anemarrhenae Rhizoma (zhī mǔ)	6 <i>liǎng</i> [18g]	
Gypsum fibrosum (shí gāo) (broken-up and placed in a cotton bag)	1 <i>jīn</i> [30g]	
Glycyrrhizae Radix <i>(gān cǎo)</i> (honey-toasted)	2 <i>liăng</i> [6g]	
Nonglutinous rice (jīng mǐ)	6 <i>gě</i> [spoonful]	
Ginseng Radix (rén shēn)	3 <i>liăng</i> [9g]	

For the above 5 ingredients, use 1 *dŏu* of water and cook until the rice is cooked, at which time the decoction is ready. Remove the dregs and take 1 *shēng* warm. Administer 3 *shēng* daily. [At present, add the five ingredients to 2000ml of water, boil until the rice is cooked, remove the dregs, take the resulting liquid warm in three equal doses.]

EXPLANATION OF FORMULA: Gypsum fibrosum (shí gāo) is very cold and clears heat while eliminating irritability. Anemarrhenae Rhizoma (zhī mǔ) clears heat

in the lung and moistens what is dry. In this formula, Ginseng Radix (rén shēn) is used to tonify the qi and generate fluids. Note that when Discussion of Cold Damage was written, only white ginseng was available. Nonglutinous rice (jīng mǐ) augments the stomach yin while Glycyrrhizae Radix (gān cǎo) moistens and harmonizes the stomach. Altogether this formula clears heat, augments the qi, and generates fluids.

The name "white tiger" is related to the five-phase system of correspondences. The color white and the tiger are both related to the metal phase. In the generating cycle (相生 xiāng shēng), metal generates water.

Chen Gu-Yu: This [formula] primarily uses the coldness of Gypsum fibrosum (shí gāo) to clear the lung, the bitterness of Anemarrhenae Rhizoma (zhī mǔ) to enrich the water, the sweetness of Glycyrrhizae Radix (gān cǎo) and Nonglutinous rice (jīng mǐ) and the tonifying [properties] of Ginseng Radix (rén shēn) to use the cold characteristics [of the medicinals] to tonify water as a means of controlling fire. Sweet flavors tonify the earth and thereby generate metal. Metal is the source of water.

You Zai-Jing: This formula uses the acrid, sweet, and very cold Gypsum fibrosum (shí gāo) as the chief to clear stomach heat and the salty, cold Anemarrhenae Rhizoma (zhī mǔ) to assist it. The sweetness of Ginseng Radix (rén shēn), Glycyrrhizae Radix (gān cǎo), and Nonglutinous rice (jīng mǐ) are used to rescue the fluid deficiency and also to control the ferocity of Gypsum fibrosum (shí gāo).

Wang Zi-Jie: Why use White Tiger plus Ginseng Decoction (bái hủ jiā rén shēn tāng) for yáng míng heat diseases transforming into dryness? Gypsum fibrosum (shí gāo) is acrid and cold; it only disperses exterior heat. Anemarrhenae Rhizoma (zhī mǔ) is sweet and bitter; it only directs interior heat downward. Glycyrrhizae Radix (gān cǎo) and Nonglutinous rice (jīng mǐ) are only able to take the medicine into the middle burner. If there is long-term heat in the stomach channel, it injures the qi. When the qi is deficient and unable to generate fluids, it is necessary [to add] Ginseng Radix (rén shēn) to nourish the normal and restore the fluids, and afterwards White Tiger Decoction (bái hǔ

*tāng*) is still able to clear and transform while eliminating dryness.

Ke Qin: Ginseng Radix (rén shēn) is added to tonify the middle and augment the qi to generate fluids; to aid the tonification of Glycyrrhizae Radix (gān cǎo) and Nonglutinous rice (jīng mǐ); and to control the cold of Gypsum fibrosum (shí gāo) and Anemarrhenae Rhizoma (zhī mǔ). This draining of fire such that the fire does no damage is grasping the complete art.

# SELECTED COMMENTARIES

Cheng Wu-Ji: If there is profuse sweating, a flooding and large pulse, but no thirst, the pathogenic qi is still in the exterior and one can again give Cinnamon Twig Decoction (guì zhī tāng). If there is profuse sweating, a flooding and large pulse, along with irritability, thirst, and no resolution [of the problem], there is heat in both the exterior and interior and one cannot again give Cinnamon Twig Decoction (guì zhī tāng). One can give White Tiger plus Ginseng Decoction (bái hǔ jiā rén shēn tāng) to generate fluids, stop thirst, harmonize the exterior, and disperse heat.

**Zhou Yang-Jun:** This paragraph is similar to the preceding one with the addition of intense irritability and thirst. So there must be comparatively more sweating than in the previous paragraph leading to exhausted fluids with even more intense dryness and heat in the exterior and interior. For this reason, White Tiger Decoction (bái hủ tāng) is used to resolve both the exterior and interior heat. Ginseng Radix (rén shēn) is added to moisten the dryness and reduce the thirst.

Chen Nian-Zu: The tài yáng qi connects with the yáng míng via the muscles and interstices. After taking Cinnamon Twig Decoction (guì zhī tāng), the best result is that the entire body is moist, as if there were a slight sweat. Here [the sweating] has been overly forced and after the resulting profuse sweating, the fluids of the yáng míng are all exhausted. As the collateral of the stomach rises to connect with the heart, [the exhausted fluids] lead to intense irritability. With the rising up of the yáng míng, dry qi rules [the condition], with intense thirst and no resolution. When the yang qi is overabundant and hyperactive, no matter what, the pulse will be flooding and large. White Tiger plus Ginseng Decoction (bái hǔ jiā rén shēn tāng) masters this.

# Discussion

The basic question raised by this paragraph is why profuse sweating after taking Cinnamon Twig Decoction (guì zhī tāng) should transform into a yáng míng presentation. The following are the most likely reasons:

- The excessive sweating injures the fluids, resulting in dryness and heat.
- The patient's constitution tends toward heat, so diseases easily transform into heat.
- An error in diagnosis by which a warm pathogen disease is treated as wind strike.

We have seen that there are three sequelae of profuse sweating after taking Cinnamon Twig Decoction (guì zhī tāng):

- yang deficiency with sweat leaking out (¶20)
- the exterior condition remains (¶25)
- into heat with injury to the fluids (¶26).

How is it possible that overly profuse sweating from taking Cinnamon Twig Decoction (guì zhī tāng) can result in both a yang-type heat and yang deficiency, two completely opposite conditions? This appears to be primarily due to differing constitutions or metabolic tendencies. People who are generally yang deficient will tend to have exhaustion of yang after profuse sweating, as the yang follows the sweat out. Those with a tendency towards heat, on the other hand, will have their fluids injured by profuse sweating, which will transform into heat and dryness.

At the present time the therapeutic scope of White Tiger plus Ginseng Decoction (bái hủ jiā rén shēn tāng) is very broad. One list of indications for this formula, from a text compiled by the Nanjing College of Traditional Medicine, includes such diseases as meningitis, encephalitis, lobar pneumonia, rheumatic myocarditis, diabetes, toothache, and atrophy of the lower limbs. Whenever one looks at such a list, there are a few important considerations to keep in mind. First, all applications of the formula need to be made on the basis of an accurate diagnosis, in this case a relatively acute damage to the fluids. Second, when a formula is said to treat a particular disease, it is *always* the case that it only treats specific presentations of the disease

with a specific mechanism. Here that is *yáng míng* dryness and heat that damages the qi and fluids, with the emphasis on damage to the fluids. Finally, when a source says that a certain formula is useful for a certain disease, it is almost always the case that the formula should be modified for the particular patient.

#### Case History

Lin XX, 38-year-old female. During the summer she fell asleep in the afternoon and lapsed into unconsciousness with a hot trunk and icy-cold limbs, profuse sweating, and rough breathing that was similar to wheezing. She did not speak and her jaw was clenched. The tongue coating was yellow and parched and the pulse was flooding, large, and hollow. This matches the presentation of summerheat inversion. This is from a fire-heat pathogen flaring and scorching the yáng ming, so the body became extremely hot. Summerheat steaming internally forces the fluids to drain outward, leading to profuse sweating along with rough breathing that is similar to wheezing. The heat constrains the qi dynamic and thus one observes extremities that are paradoxically icy-cold. When pathogenic heat disturbs internally and the normal [qi] does not overcome the foe, the patient will be unconscious and unable to speak; the pulse will be full, large, and hollow.

Treatment should clear summerheat and drain off heat and augment qi and generate fluids by giving White Tiger plus Ginseng Decoction (bái hủ jiā rén shēn tāng).

Korean white ginseng Ginseng Radix (báirén shēn)	15g
Anemarrhenae Rhizoma (zhī mǔ)	15g
Nonglutinous rice (jīng mǐ)	15g
Gypsum fibrosum (shí gāo)	30g
Glycyrrhizae Radix (gān cǎo)	9g

After taking one packet the pulse was quieter and the sweating stopped, the hands and feet became warm, she regained clear consciousness, her breathing remained rapid, and she was thirsty with a desire for cold drinks. She was completely cured after taking another packet. (Su Bo-Ao)<sup>46</sup>