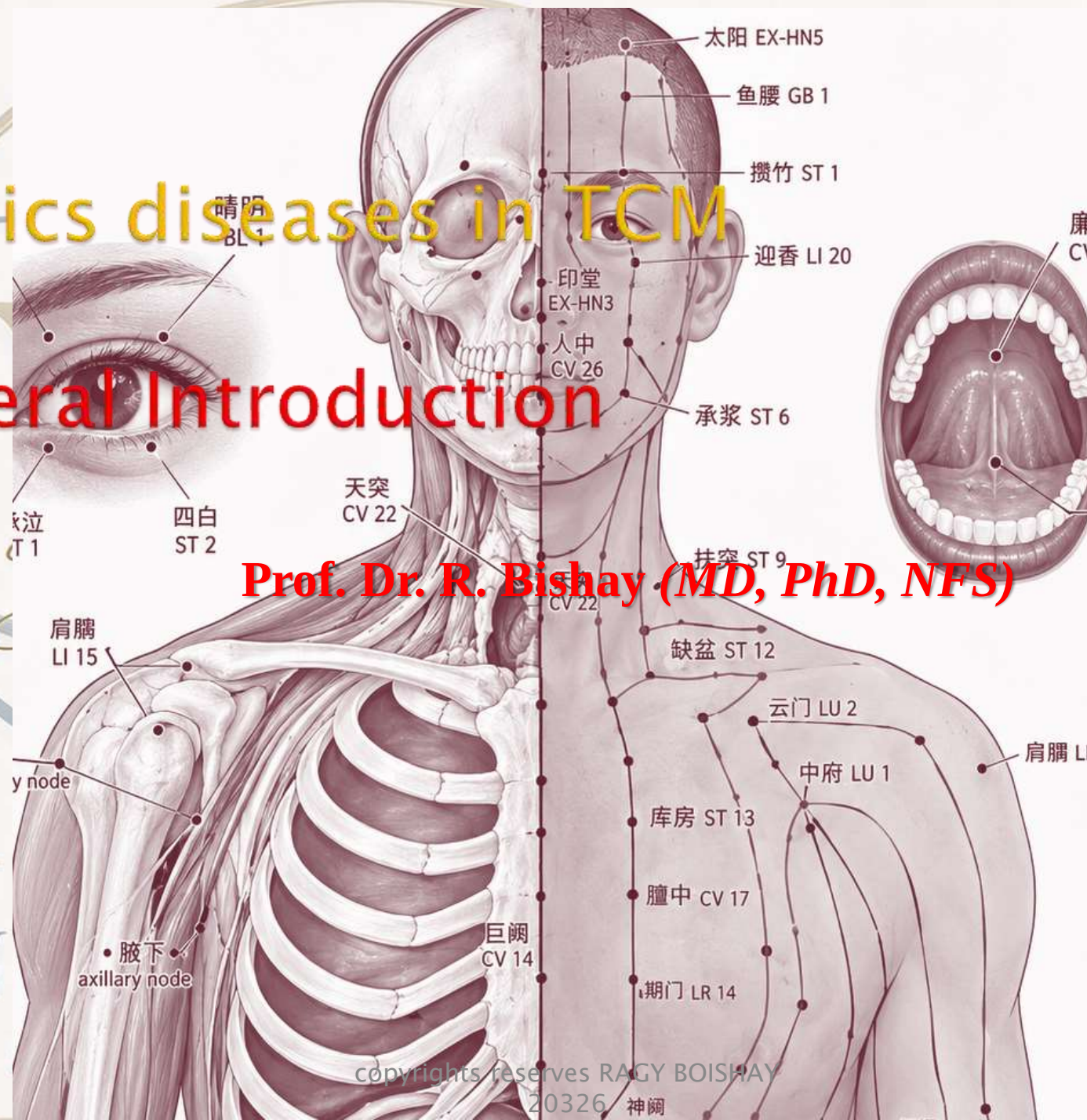
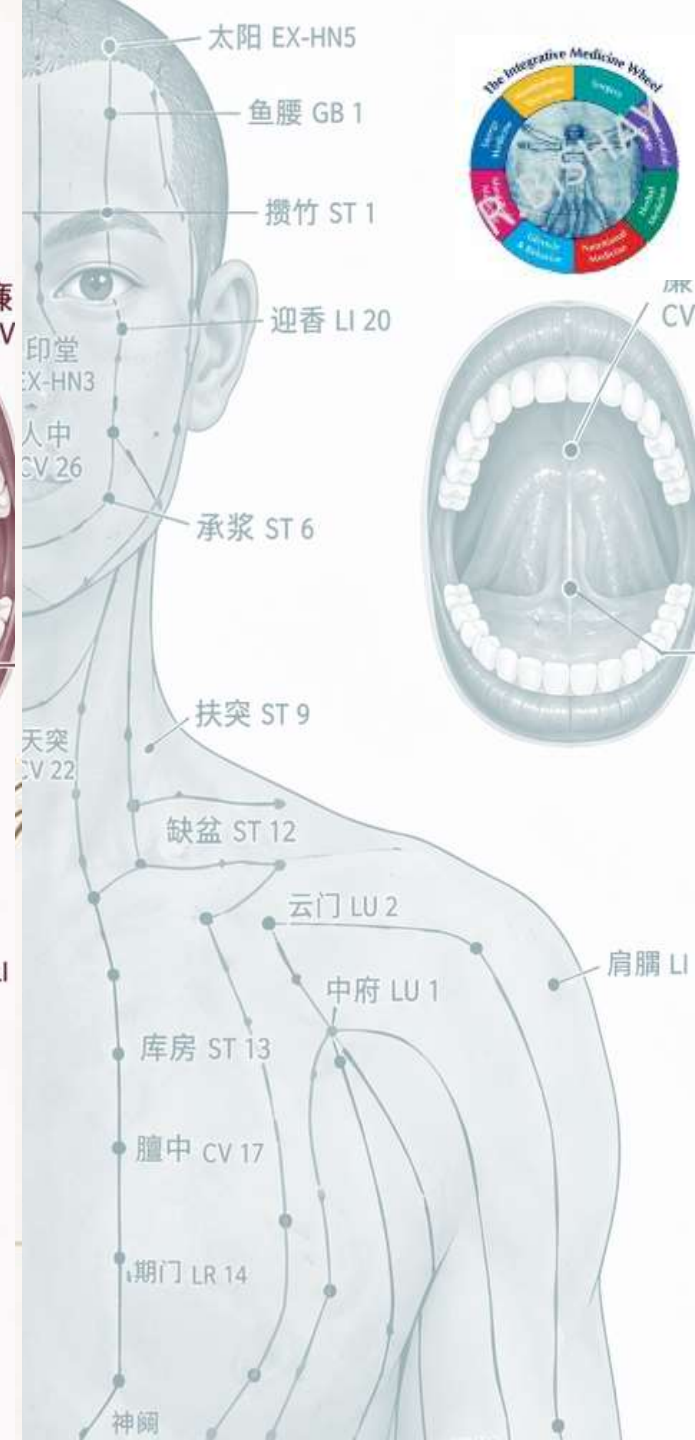


Pediatrics diseases in TCM

1- General Introduction

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1. The Unique Characteristics of Children :

➤ The Two Main characteristics of Pediatric Physiology:

1 – The viscera (5 zang) and bowels (6 Fu) are tender and delicate and form qi is not full.

➤ skin and hair, muscles and flesh, sinews and bones, brain and marrow,

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2 – Children have a pure yang constitution.

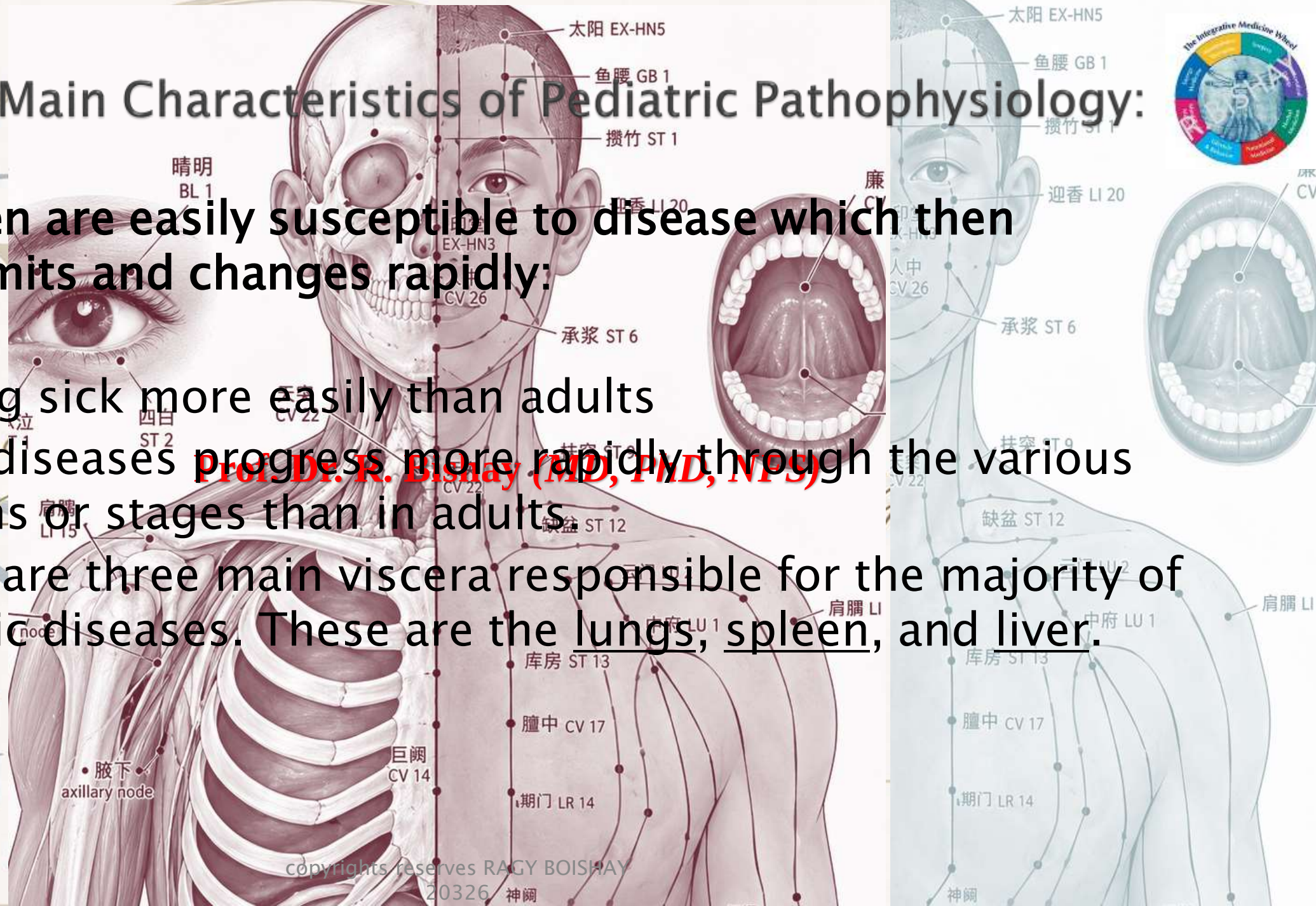
➤ This means that yin and yang within young children's bodies are not well integrated, Because yin is not capable of checking and controlling yang, yang easily becomes hyperactive. When yang becomes hyperactive, it may easily manifest as evil heat.



The Two Main Characteristics of Pediatric Pathophysiology:

1. Children are easily susceptible to disease which then transmits and changes rapidly:

- ▶ -Getting sick more easily than adults
- ▶ -Their diseases progress more rapidly through the various divisions or stages than in adults.
- ▶ -There are three main viscera responsible for the majority of pediatric diseases. These are the lungs, spleen, and liver.



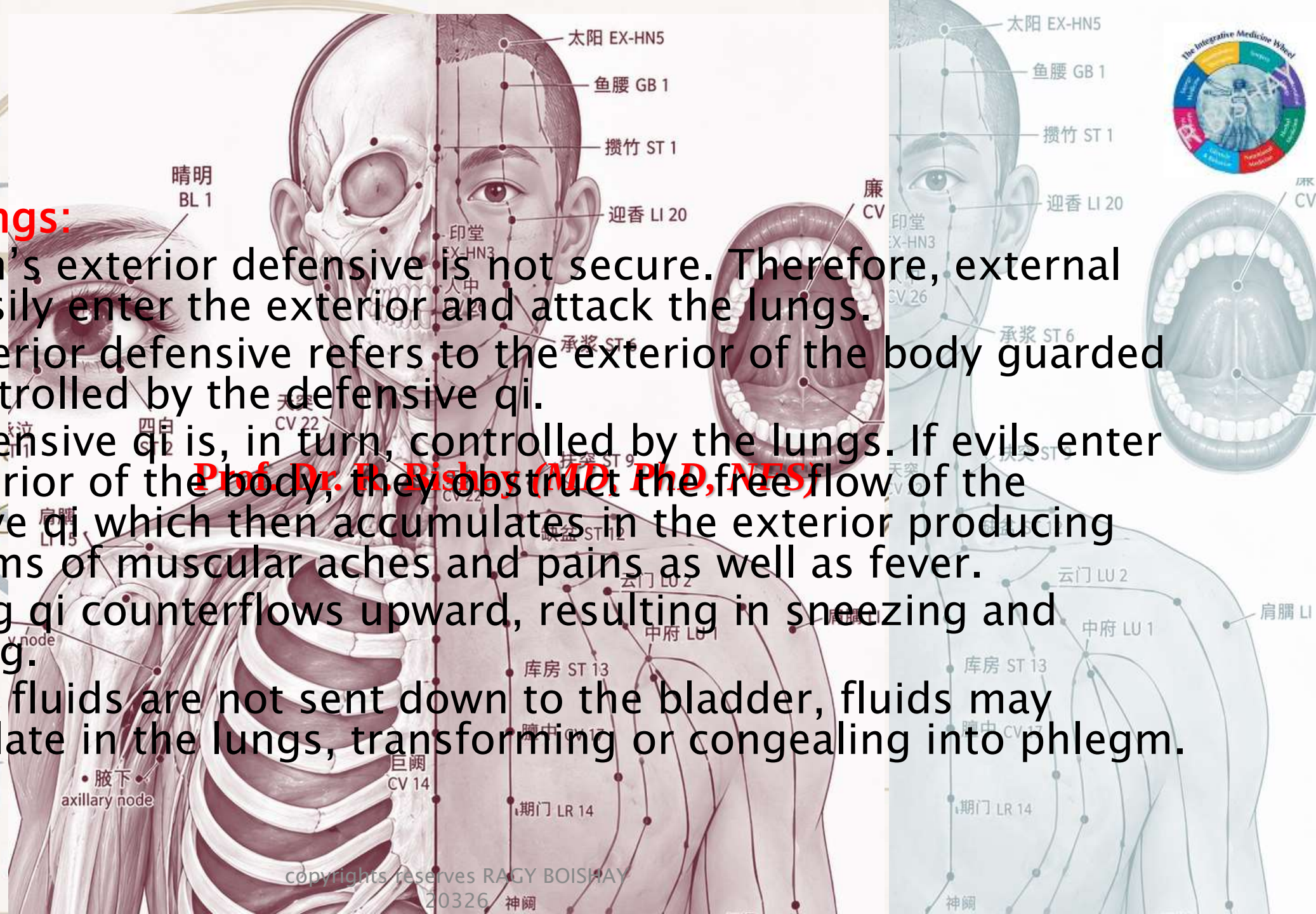
A. The lungs:

- ▶ Children's exterior defensive is not secure. Therefore, external evils easily enter the exterior and attack the lungs.
- ▶ The exterior defensive refers to the exterior of the body guarded and controlled by the defensive qi.
- ▶ The defensive qi is, in turn, controlled by the lungs. If evils enter the exterior of the body, they obstruct the free flow of the defensive qi which then accumulates in the exterior producing symptoms of muscular aches and pains as well as fever.
- ▶ The lung qi counterflows upward, resulting in sneezing and coughing.
- ▶ Because fluids are not sent down to the bladder, fluids may accumulate in the lungs, transforming or congealing into phlegm.

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B-The Spleen:

- ▶ The spleen function *is weak and immature in children. If the spleen's function of the transportation and transformation of foods and liquids is weak, then stagnant food may easily accumulate in the stomach.*

- ▶ When this happens:

First, it may give rise to indigestion and other digestive tract complaints, such as vomiting and/or diarrhea, with the signs and symptoms of food stagnation.

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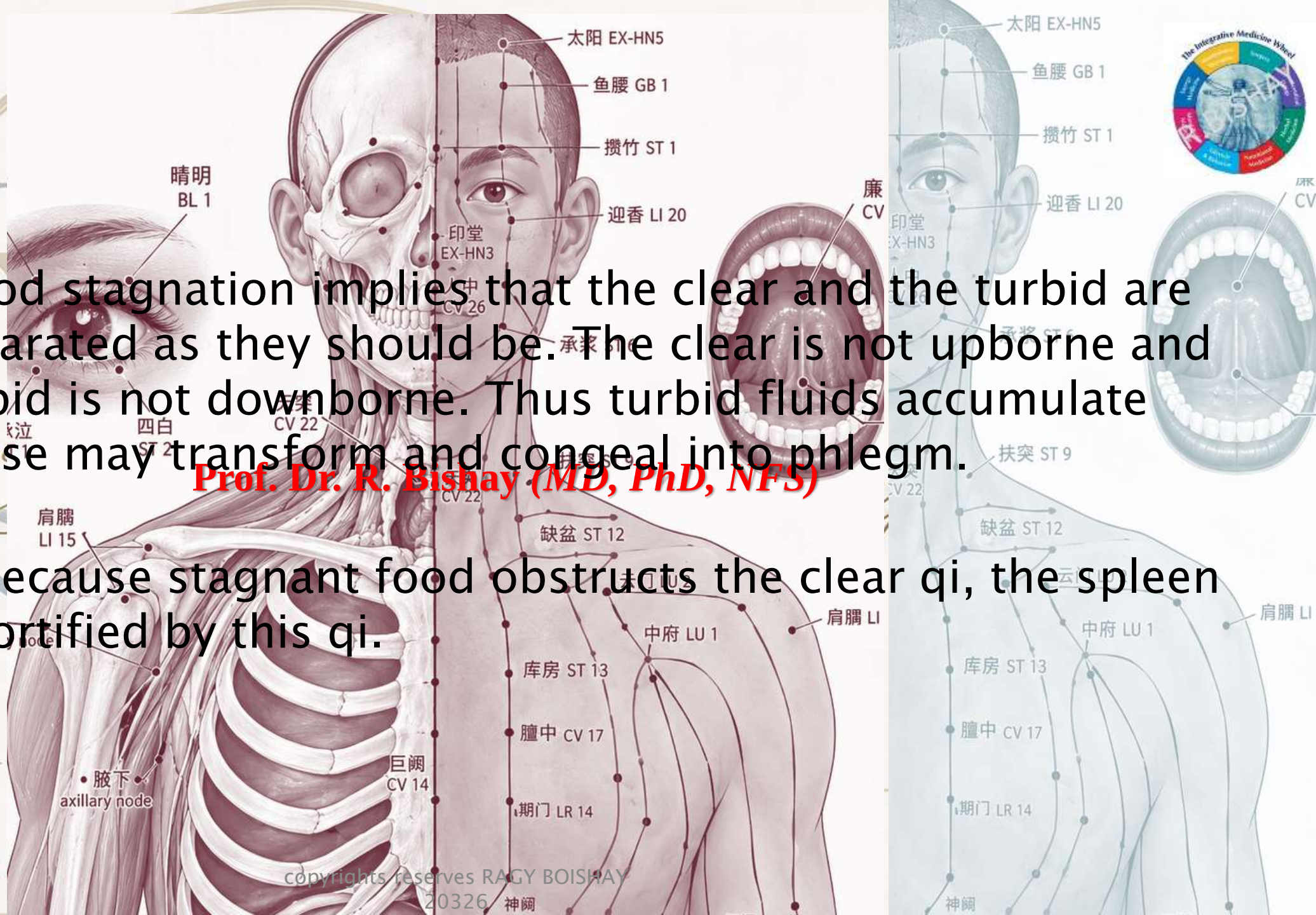
Secondly, it may give rise to symptoms of evil heat. This is because food depression obstructs the flow of yang qi. When yang qi is not allowed to flow freely, it becomes stagnant or depressed and accumulates. Because it is yang, when it accumulates, it may manifest as heat, since warmth is one of the inherent characteristics of yang qi.



Third, food stagnation implies that the clear and the turbid are not separated as they should be. The clear is not upborne and the turbid is not downborne. Thus turbid fluids accumulate and these may transform and congeal into phlegm.

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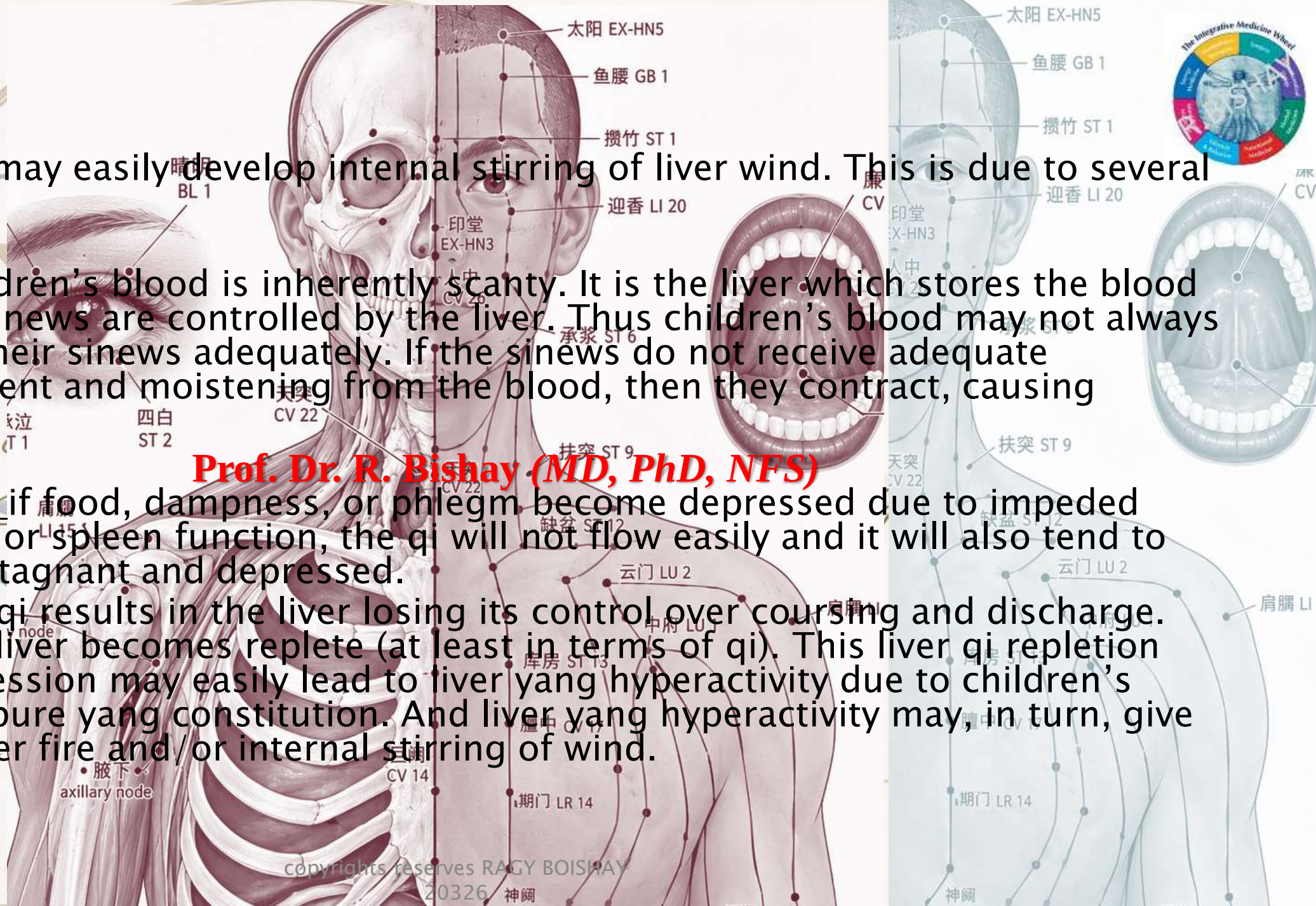
Fourth, because stagnant food obstructs the clear qi, the spleen is not fortified by this qi.



C-Liver:

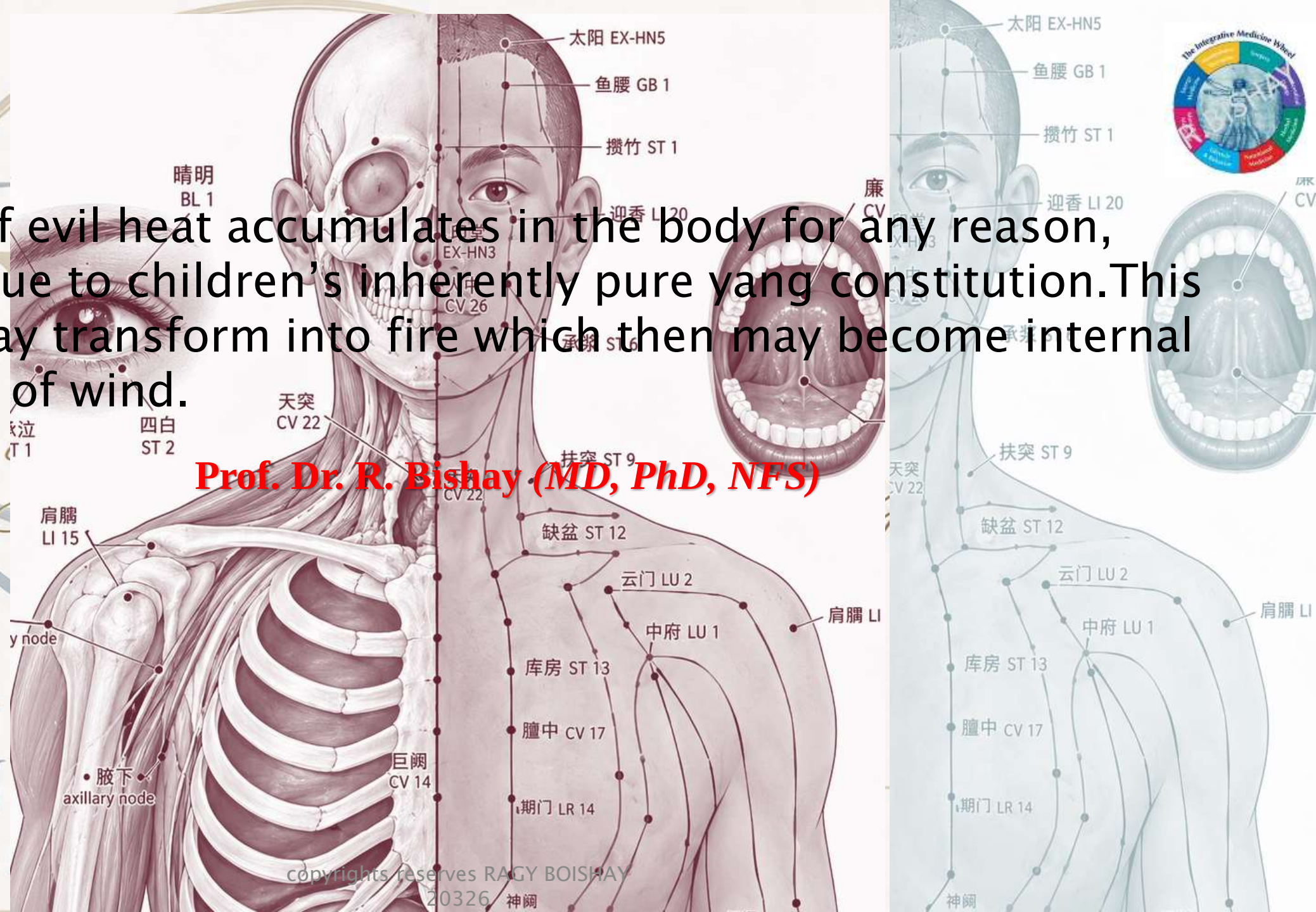
- ▶ Children may easily develop internal stirring of liver wind. This is due to several reasons.
- ▶ **First**, children's blood is inherently scanty. It is the liver which stores the blood and the sinews are controlled by the liver. Thus children's blood may not always nourish their sinews adequately. If the sinews do not receive adequate nourishment and moistening from the blood, then they contract, causing spasms.
- ▶ **Secondly**, if food, dampness, or phlegm become depressed due to impeded lung and/or spleen function, the qi will not flow easily and it will also tend to become stagnant and depressed.
- ▶ Stagnant qi results in the liver losing its control over coursing and discharge. Thus the liver becomes replete (at least in terms of qi). This liver qi repletion and depression may easily lead to liver yang hyperactivity due to children's inherent pure yang constitution. And liver yang hyperactivity may, in turn, give rise to liver fire and/or internal stirring of wind.

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- ▶ Third, if evil heat accumulates in the body for any reason, again due to children's inherently pure yang constitution. This heat may transform into fire which then may become internal stirring of wind.

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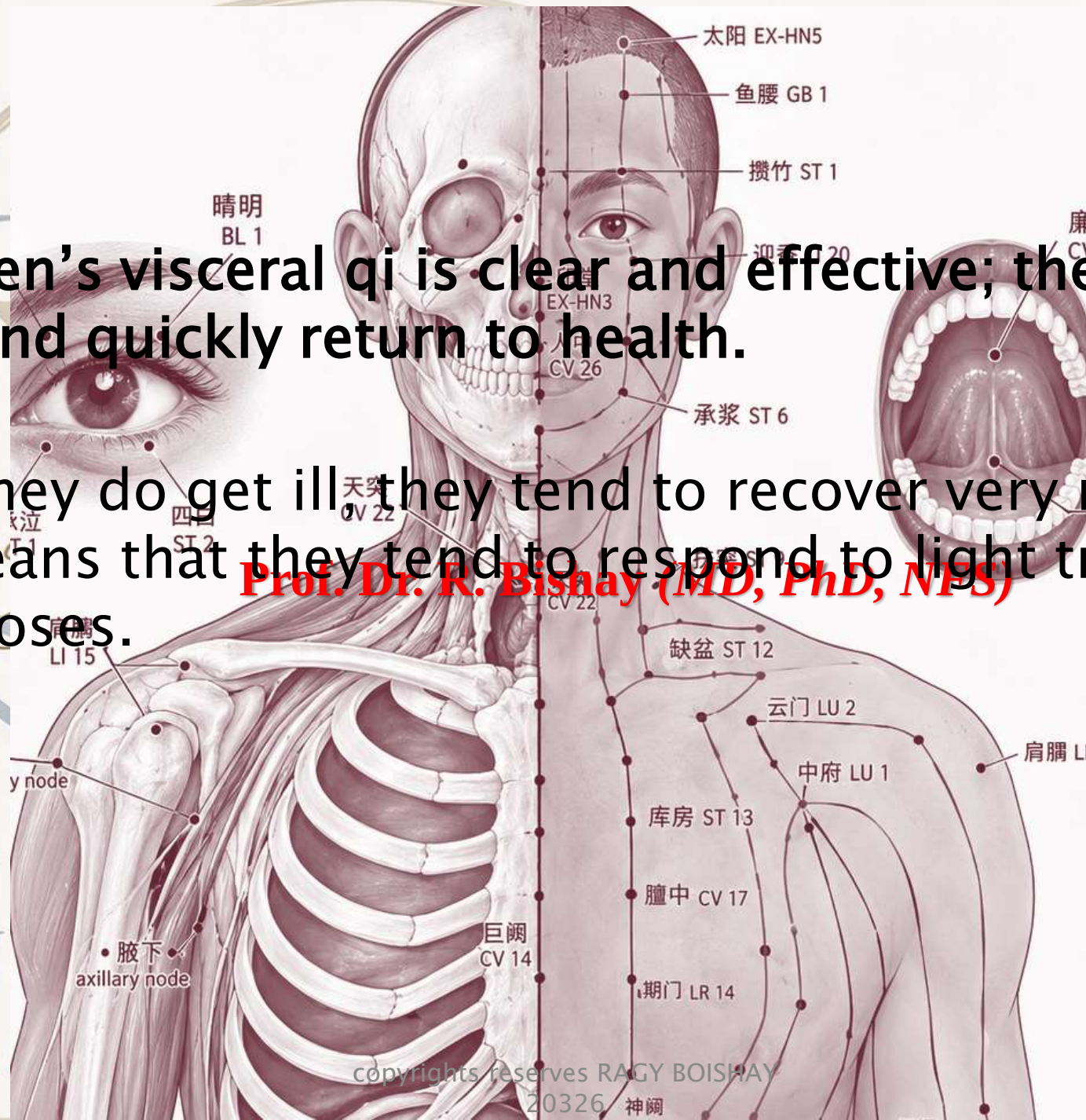
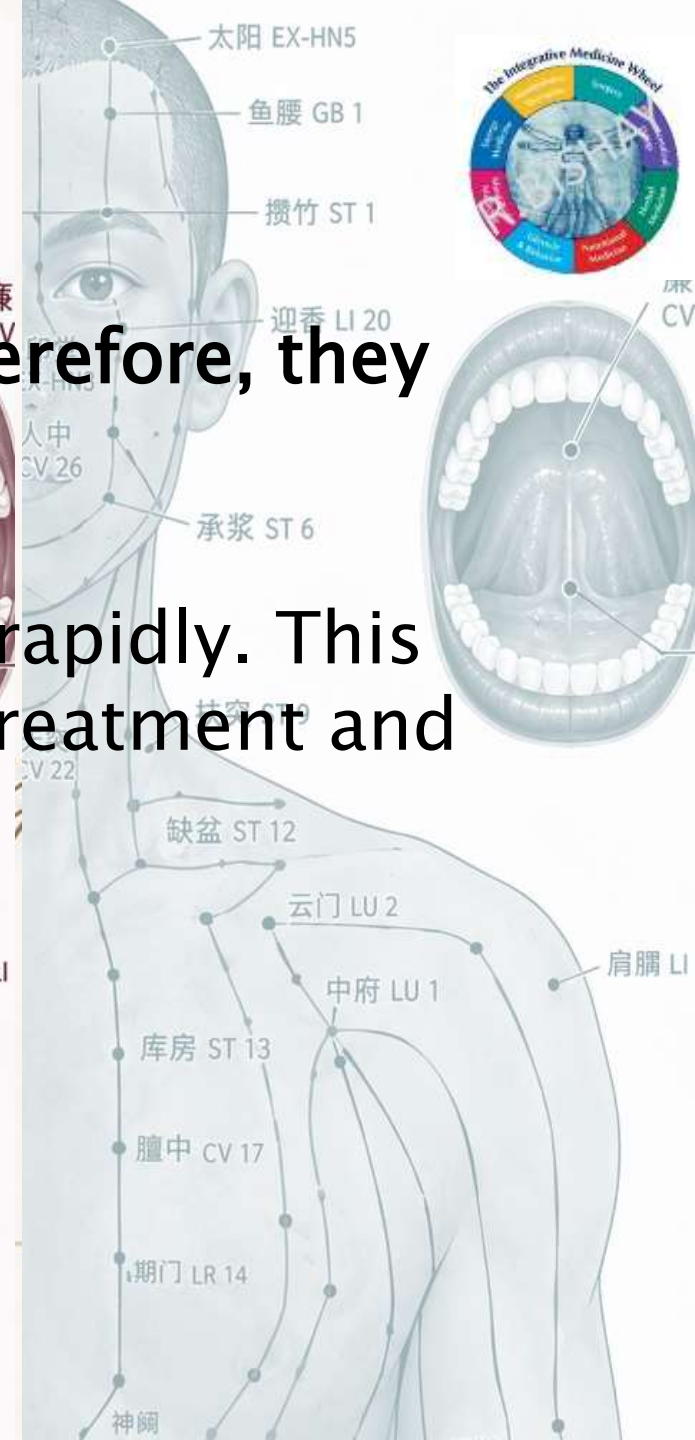


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2. Children's visceral qi is clear and effective; therefore, they easily and quickly return to health.

▶ When they do get ill, they tend to recover very rapidly. This also means that they tend to respond to light treatment and small doses.

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Key Points in Diagnosing Children:

- ▶ The TCM practitioner uses four basic methods called the four examinations. These consist of looking, listening/smelling, feeling, and questioning.

1-Looking:

- ▶ Baby's eyes and facial color
- ▶ Hands and nails
- ▶ The color, size, and shape of the vein at the base of the index finger
- ▶ Any particular area which is painful or diseased.

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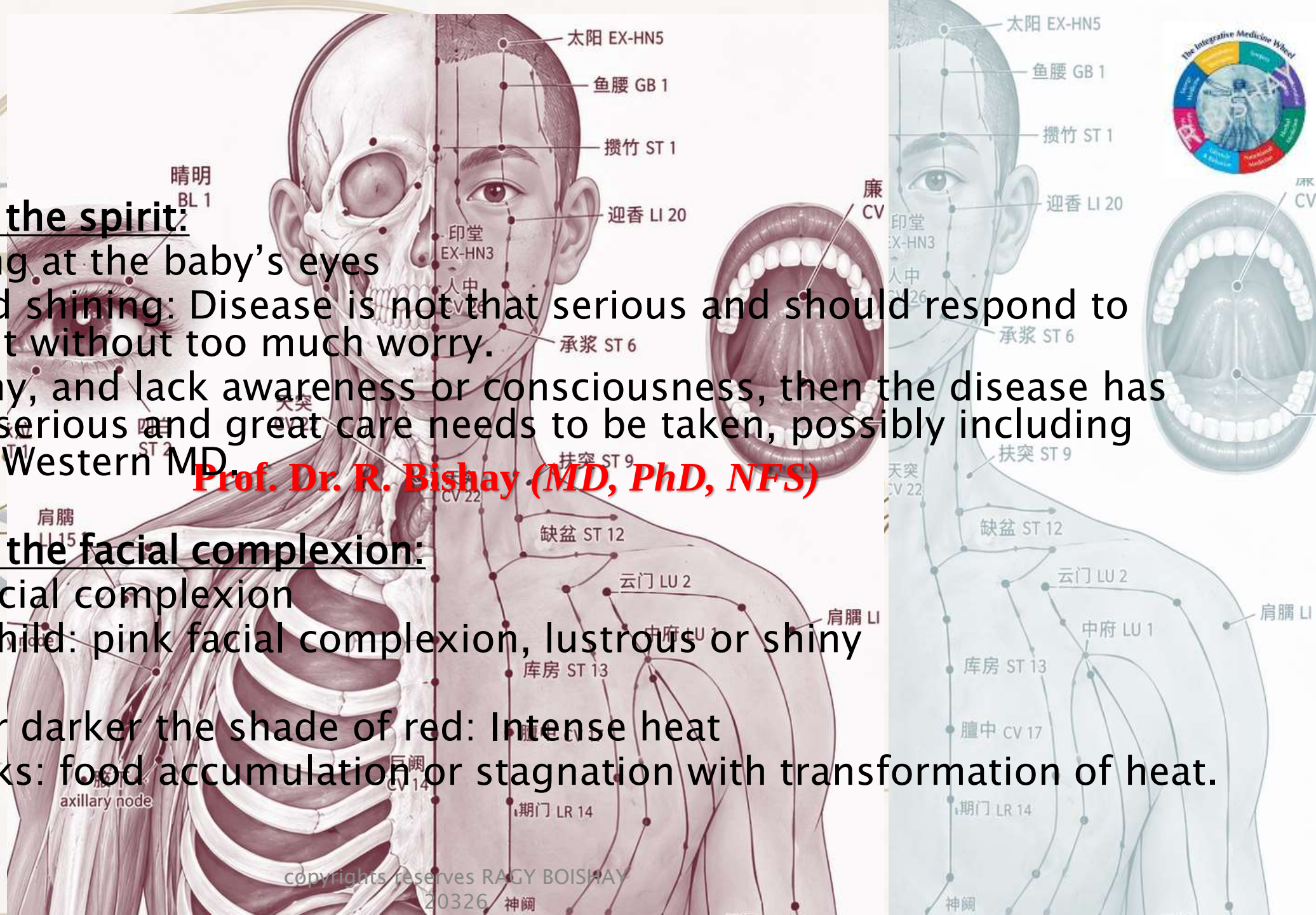
Inspection the spirit:

- ▶ By looking at the baby's eyes
- ▶ Clear and shining: Disease is not that serious and should respond to treatment without too much worry.
- ▶ Dull, filmy, and lack awareness or consciousness, then the disease has become serious and great care needs to be taken, possibly including seeing a Western MD.

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Inspecting the facial complexion:

1. A red facial complexion
 - Healthy child: pink facial complexion, lustrous or shiny
 - Red: heat
 - Deeper or darker the shade of red: Intense heat
 - Red cheeks: food accumulation or stagnation with transformation of heat.



2. A pale facial complexion:

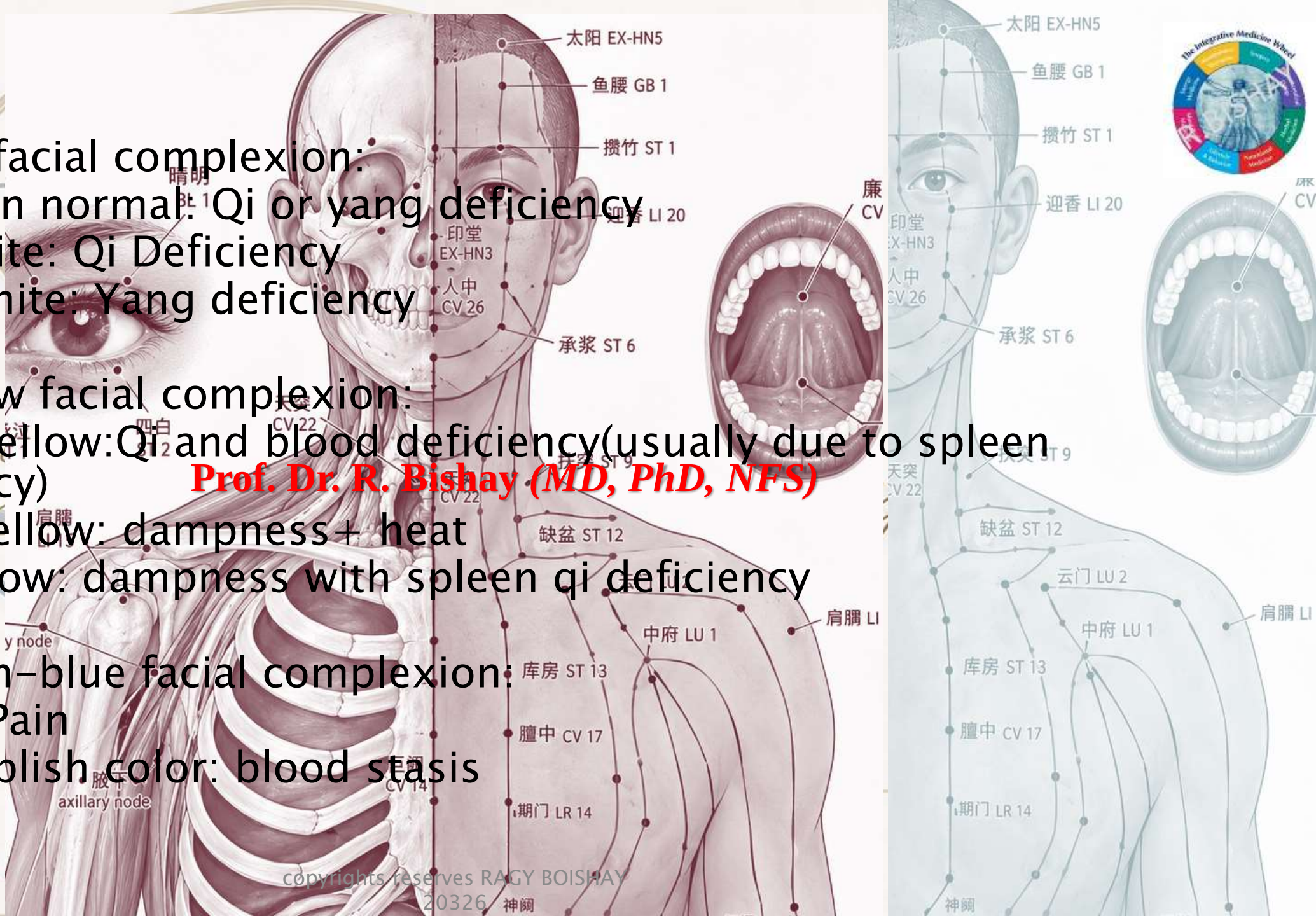
- Paler than normal: Qi or yang deficiency
- Dark White: Qi Deficiency
- Bright white: Yang deficiency

3. A Yellow facial complexion:

- Sallow yellow: Qi and blood deficiency (usually due to spleen deficiency)
- Bright yellow: dampness + heat
- Dull yellow: dampness with spleen qi deficiency

4. A Green-blue facial complexion:

- Cold or Pain
- with purplish color: blood stasis

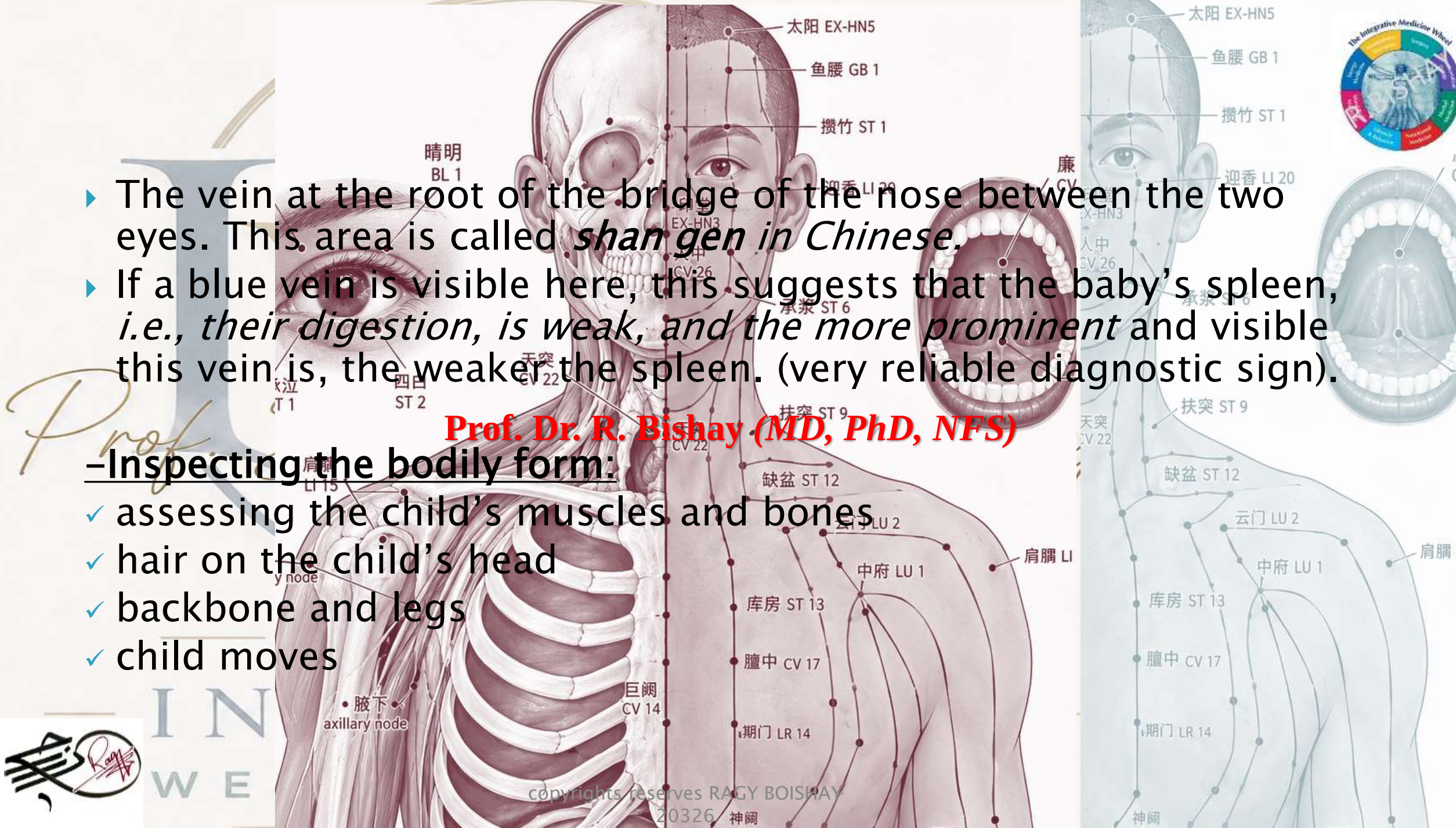


- ▶ The vein at the root of the bridge of the nose between the two eyes. This area is called *shan gen* in Chinese.
- ▶ If a blue vein is visible here, this suggests that the baby's spleen, *i.e., their digestion, is weak, and the more prominent and visible this vein is, the weaker the spleen.* (very reliable diagnostic sign).

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-Inspecting the bodily form:

- ✓ assessing the child's muscles and bones
- ✓ hair on the child's head
- ✓ backbone and legs
- ✓ child moves



Inspecting the tongue, eyes, nose, mouth, ears & two yin

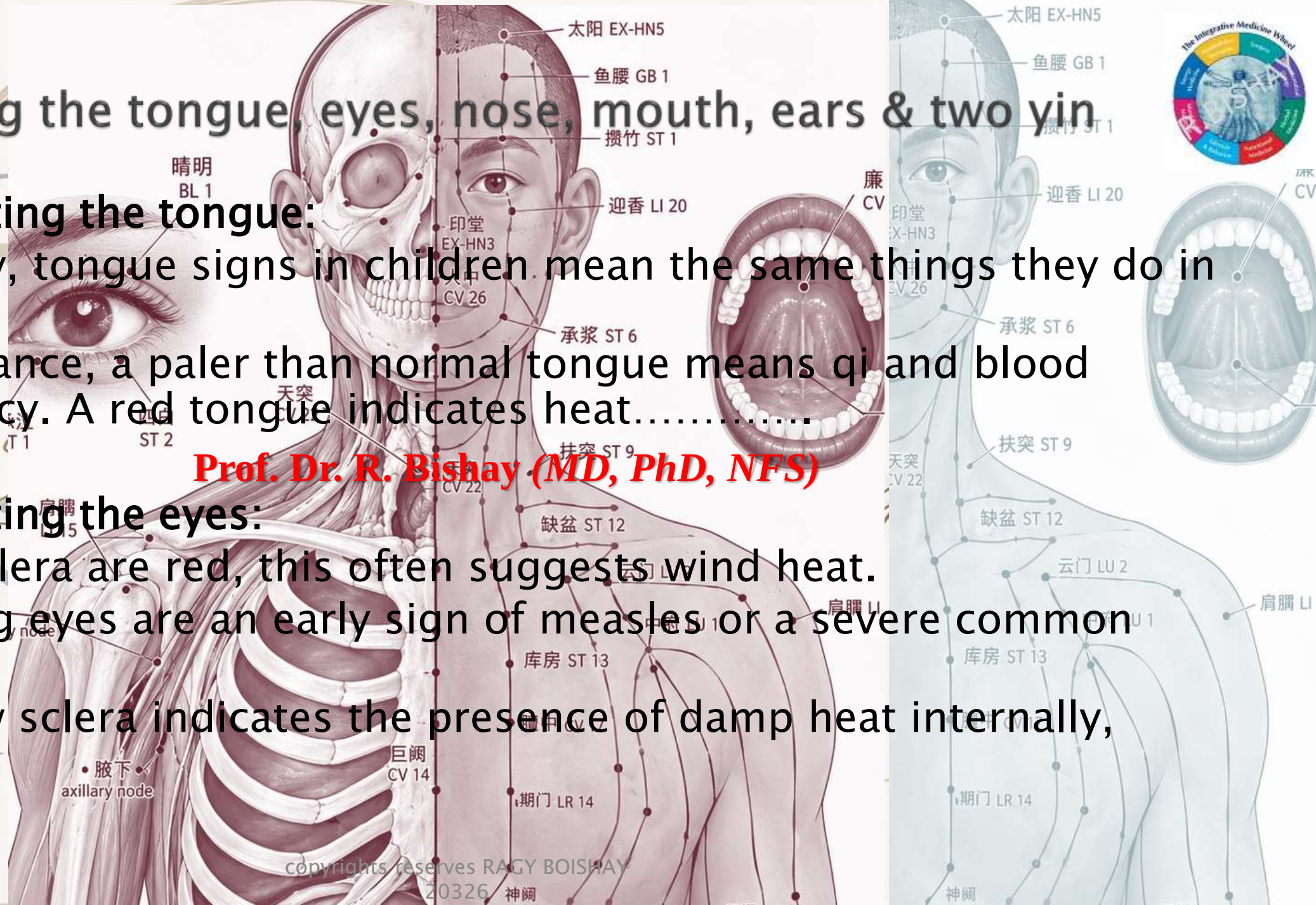
1. Inspecting the tongue:

- ▶ Basically, tongue signs in children mean the same things they do in adults.
- ▶ For instance, a paler than normal tongue means qi and blood deficiency. A red tongue indicates heat.....

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2. Inspecting the eyes:

- ▶ If the sclera are red, this often suggests wind heat.
- ▶ Watery eyes are an early sign of measles or a severe common cold.
- ▶ A yellow sclera indicates the presence of damp heat internally,



- ▶ black or dark bluish spots in the sclera point to the presence of intestinal parasites.
- ▶ Abnormally dilated or contracted pupils suggest kidney qi exhaustion and deficiency.
- ▶ Slight corneal opacity in infants and young children may be a sign of malnutrition.
- ▶ staring straight ahead with fixed eyes and a dull expression indicates infantile convulsions.

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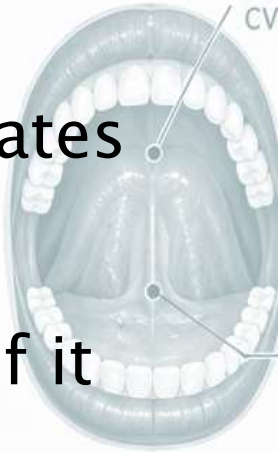
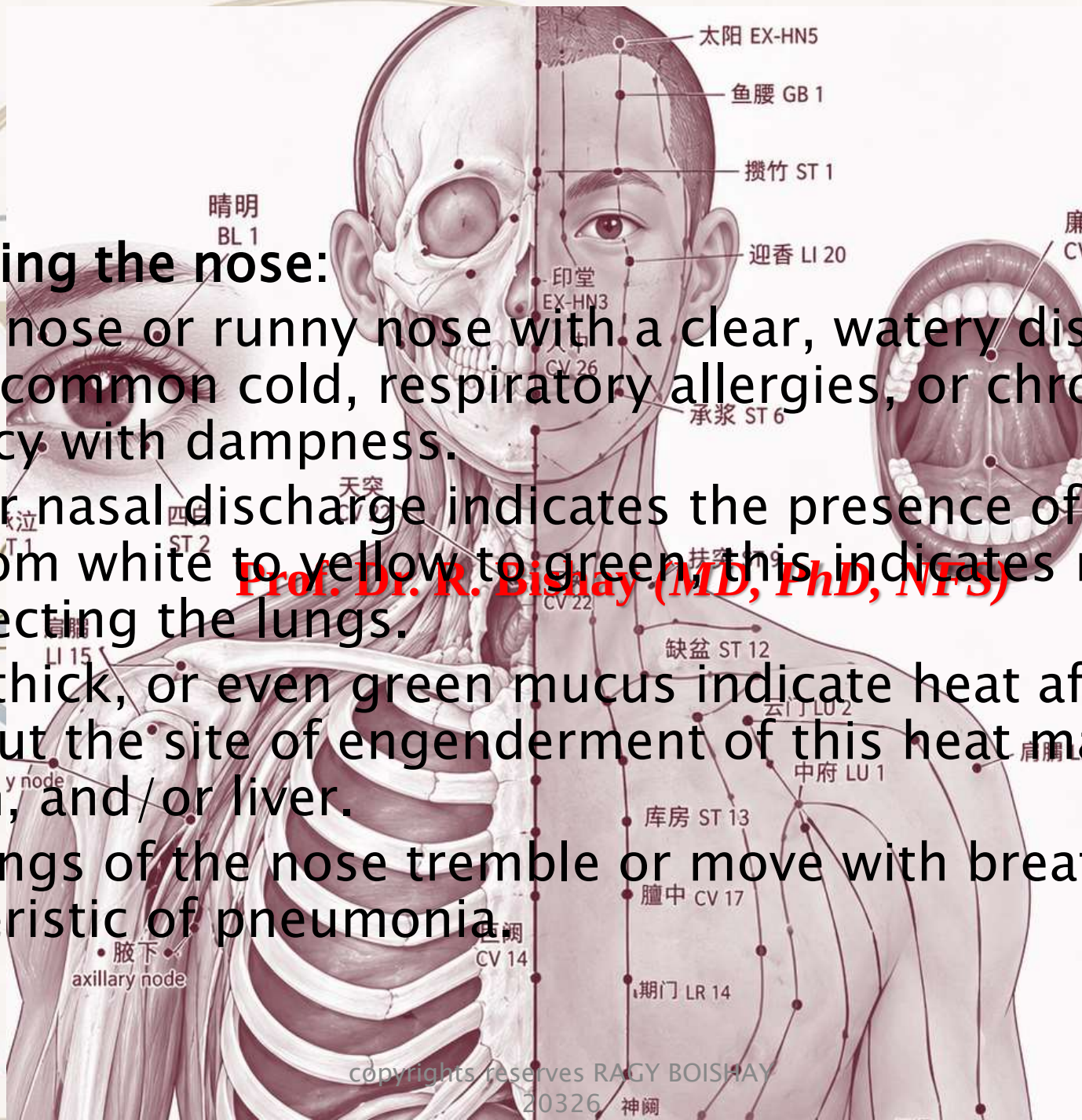
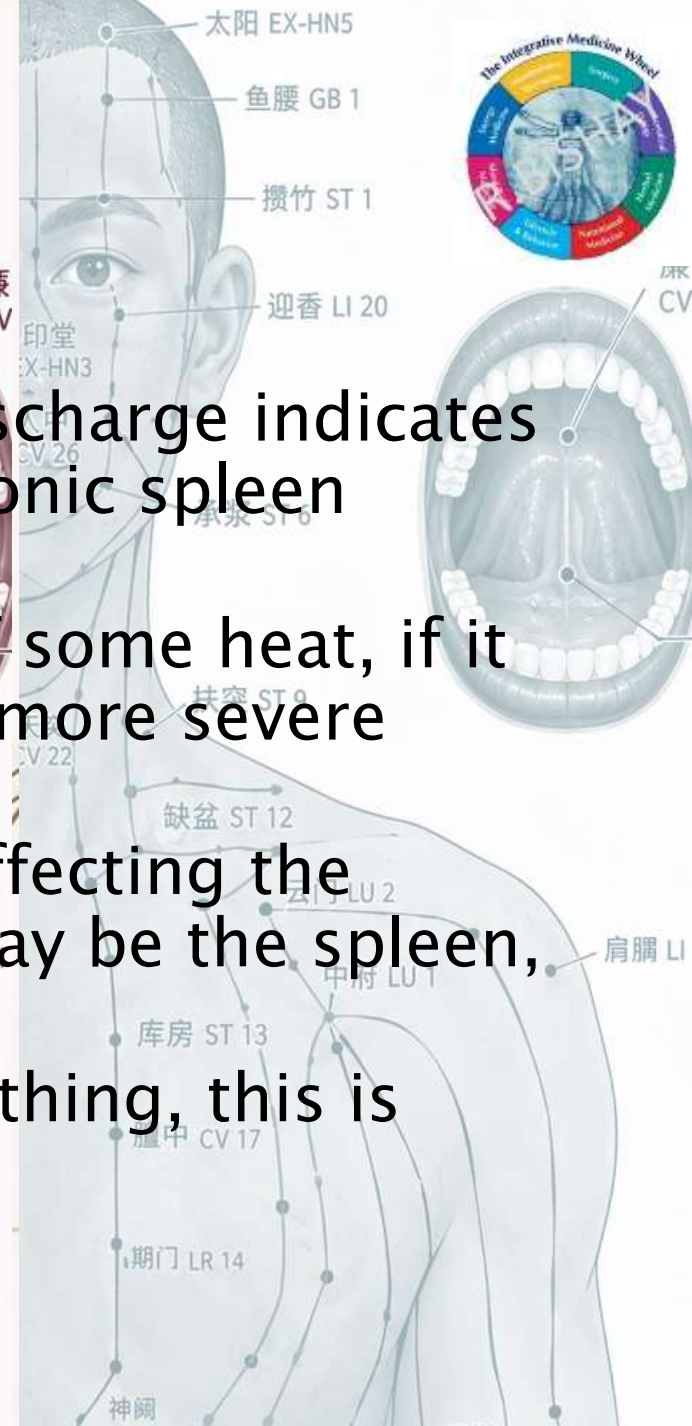


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3. Inspecting the nose:

- ▶ A stuffy nose or runny nose with a clear, watery discharge indicates either a common cold, respiratory allergies, or chronic spleen deficiency with dampness.
- ▶ A thicker nasal discharge indicates the presence of some heat, if it turns from white to yellow to green, this indicates more severe heat affecting the lungs.
- ▶ Yellow, thick, or even green mucus indicate heat affecting the lungs, but the site of engenderment of this heat may be the spleen, stomach, and/or liver.
- ▶ If the wings of the nose tremble or move with breathing, this is characteristic of pneumonia.

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- ▶ Dry, yellow nasal mucus or crusting around the nose of dry mucus suggests dryness and heat.
- ▶ Nose bleeding suggests heat in the lung channel if it accompanies an obvious upper respiratory disease.
- ▶ Heat in the stomach if it occurs after eating and particularly after eating greasy, fatty, and/or spicy, hot food.

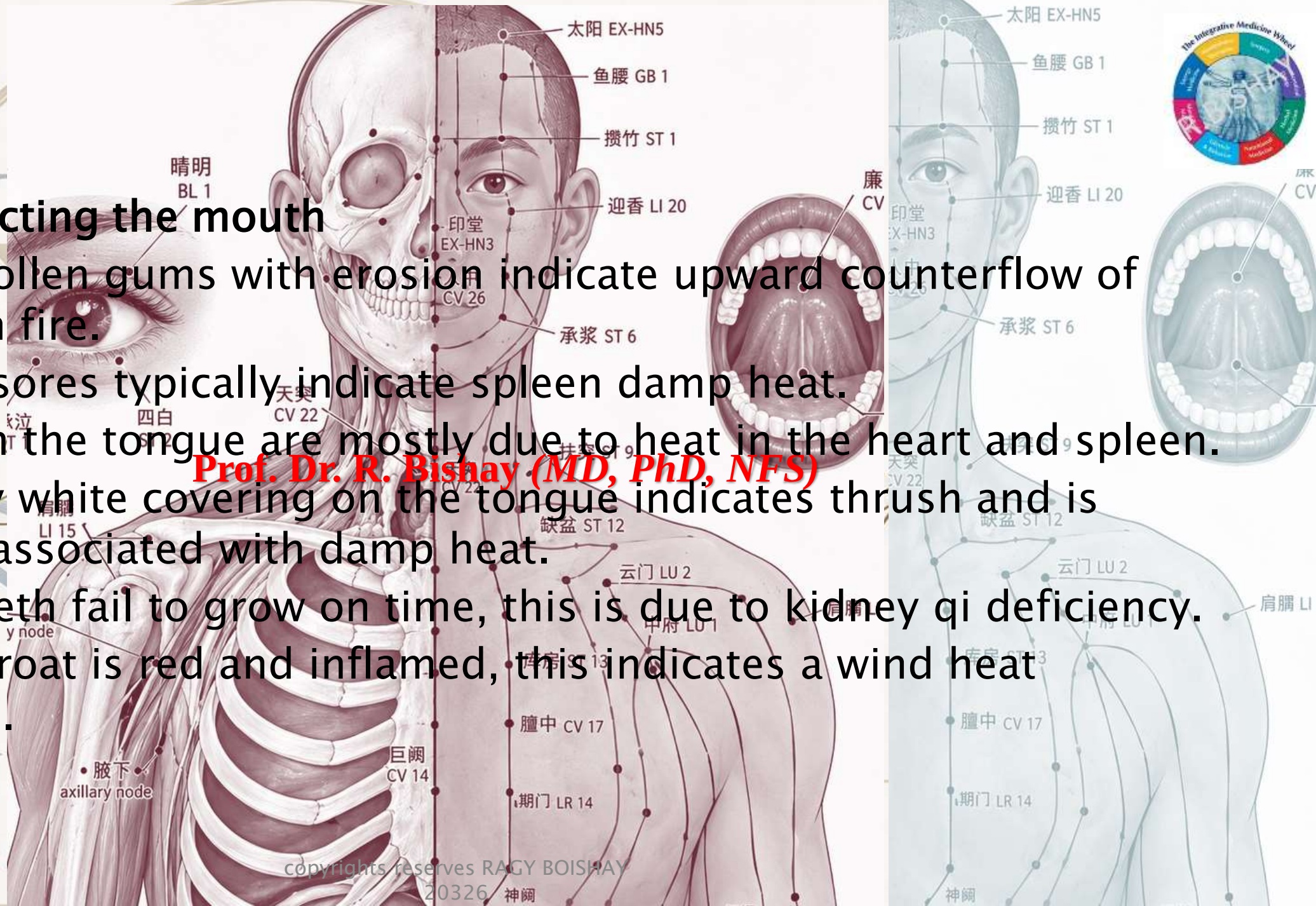
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- ▶ **4. Inspecting the mouth**
- ▶ Red, swollen gums with erosion indicate upward counterflow of stomach fire.
- ▶ Canker sores typically indicate spleen damp heat.
- ▶ Sores on the tongue are mostly due to heat in the heart and spleen.
- ▶ a patchy white covering on the tongue indicates thrush and is usually associated with damp heat.
- ▶ If the teeth fail to grow on time, this is due to kidney qi deficiency.
- ▶ If the throat is red and inflamed, this indicates a wind heat invasion.

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- ▶ If the tonsils are swollen and red, then there is wind heat with heat toxins or heat retained in the lungs and stomach.
- ▶ If the tonsils are swollen and inflamed and are covered with a white or yellowish white membrane which can be wiped away, then there are definitely heat toxins causing tonsillitis.
- ▶ If there is a grayish white membrane covering the back wall of the throat which cannot be wiped away, this suggests diphtheria.

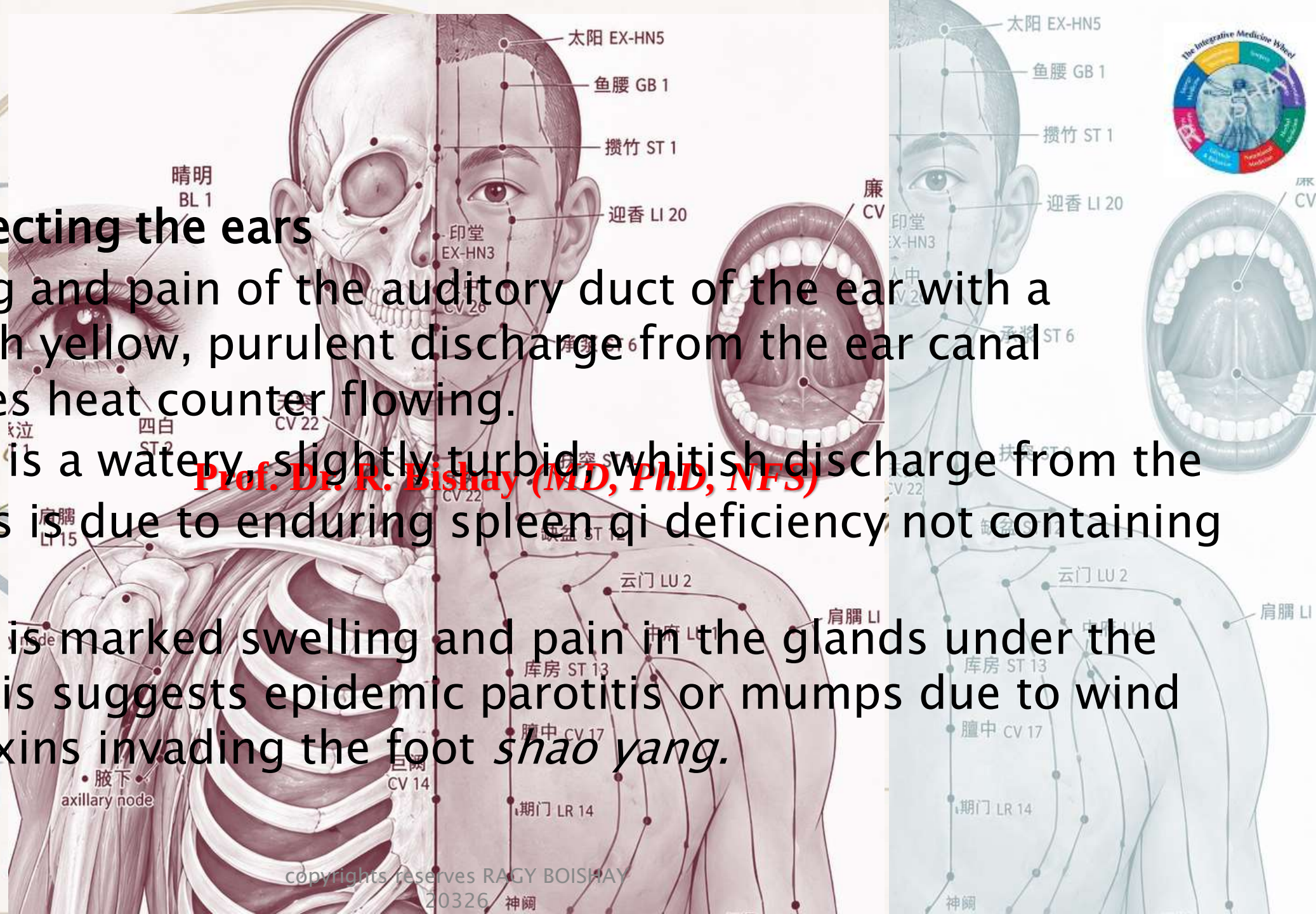
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- ▶ **5. Inspecting the ears**
- ▶ Swelling and pain of the auditory duct of the ear with a greenish yellow, purulent discharge from the ear canal indicates heat counter flowing.
- ▶ If there is a watery, slightly turbid, whitish discharge from the ear, this is due to enduring spleen qi deficiency not containing fluids.
- ▶ If there is marked swelling and pain in the glands under the ears, this suggests epidemic parotitis or mumps due to wind heat toxins invading the foot *shao yang*.

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Inspecting skin rashes & eruptions

1. Small, papular eruptions:

- ▶ measles, rubella, and scarlet fever.

2. Vesicular eruptions

- ▶ Raised vesicles which are red colored at their base and which may occur on the head, face, and four limbs are characteristic of chicken pox and impetigo.
- ▶ Chicken pox begins as fine, raised papules which then become water blisters the size of soybeans. After the eruptions break, they dry up, crust, and scab. The water blisters of chicken pox can cover the entire body.
- ▶ Impetigo, on the other hand, is characterized by turbid, pus-filled lesions with red bases or roots which typically affect only a localized area. These lesions may then spread if the pus filling the lesions touches the surrounding skin.

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3. Macular eruptions

- ▶ Bright red macular eruptions which are not noticeably raised, do not lose their color when pressed are characteristic of heat toxins having entered the constructive and blood divisions.
- ▶ If macular eruptions are indistinct or dark purplish in color accompanied by a pale complexion, cold limbs, and a fine pulse, then qi is too weak to contain and restrain the blood within its vessels. These are called yin eruptions as compared to the yang eruptions above and indicate a serious pathological condition.

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Inspecting the stools & urine

1. The stools

- ▶ Small, hard, round, dry stools with several days between movements indicate full heat in the *yang ming* or consumption of *yin fluids* due to warm disease.
- ▶ Loose stools containing white milk curds or brightish yellow in color and smelling like rotten eggs indicate food stagnation due to unregulated feeding.
- ▶ Blood and pus or mucus in the stools suggest the presence of damp heat in the intestines. If there is more blood, there is more heat. If there is more pus or mucus, there is more dampness.
- ▶ If the stools are bloody like the color of soy sauce in a nursing infant accompanied by crying from time to time, this indicates intestinal obstruction and intussusceptions.

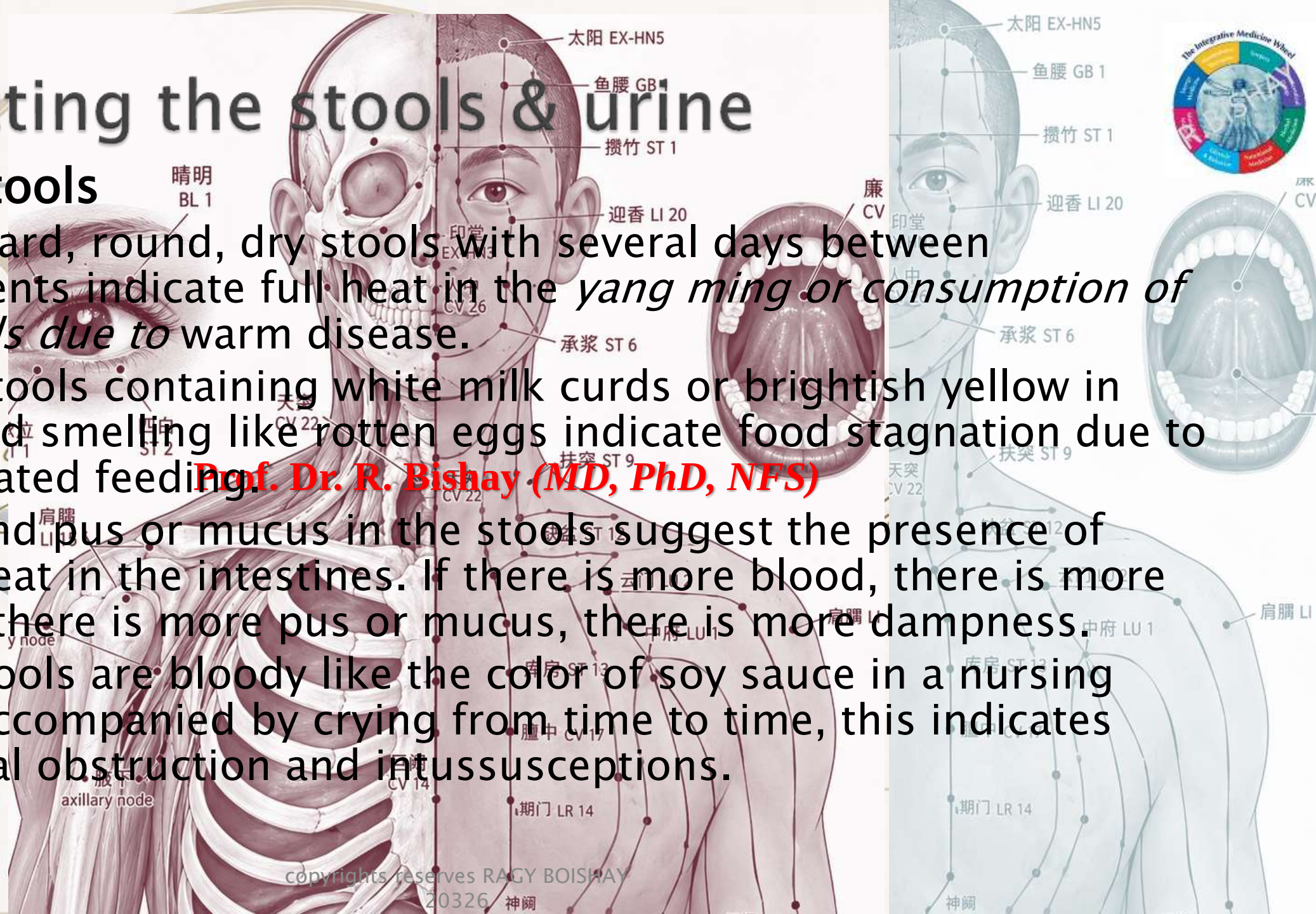
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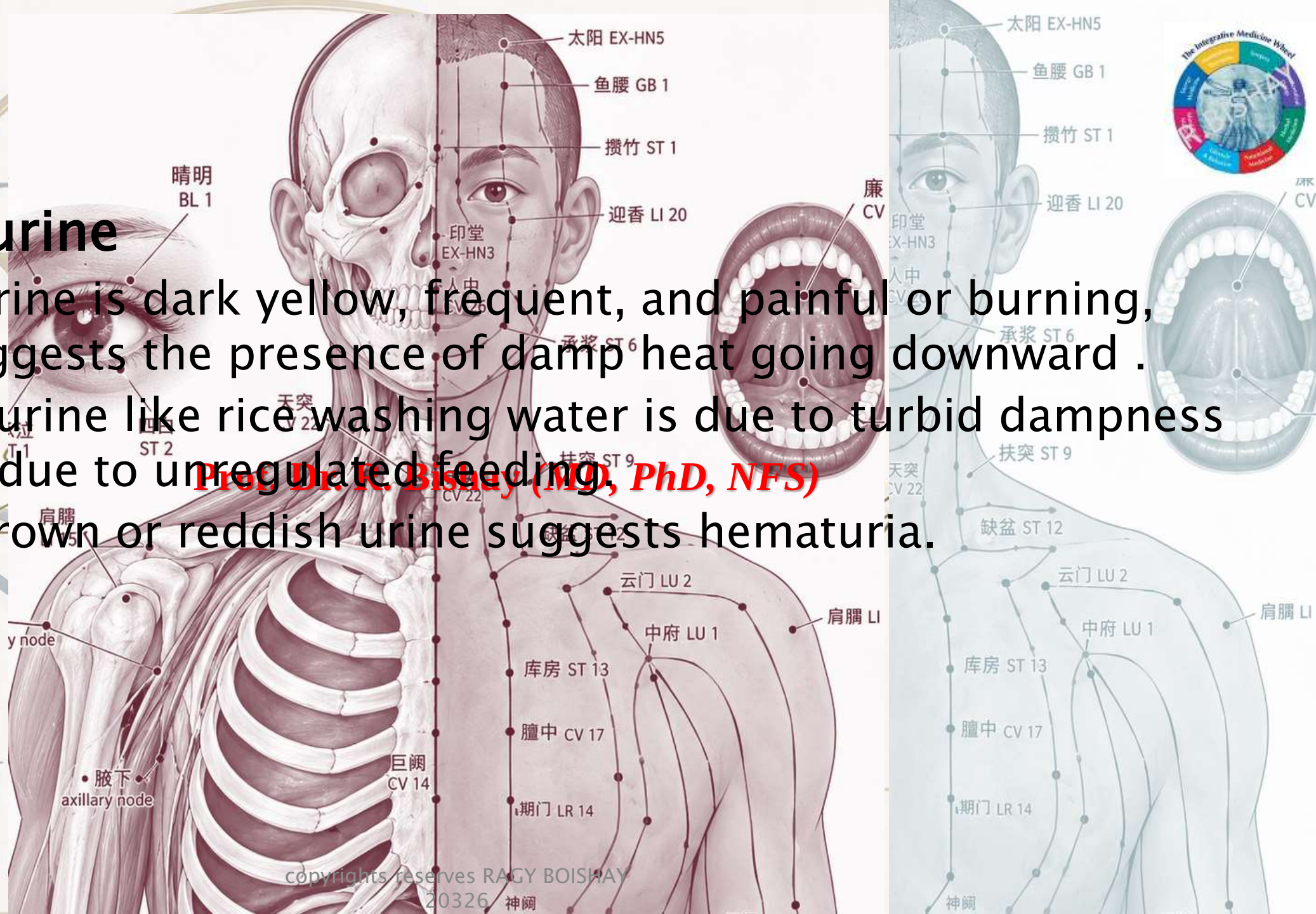
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2. The urine

- ▶ If the urine is dark yellow, frequent, and painful or burning, this suggests the presence of damp heat going downward.
- ▶ Turbid urine like rice washing water is due to turbid dampness in turn due to unregulated feeding.
- ▶ Deep brown or reddish urine suggests hematuria.



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2- Listening/Smelling:

Cough..

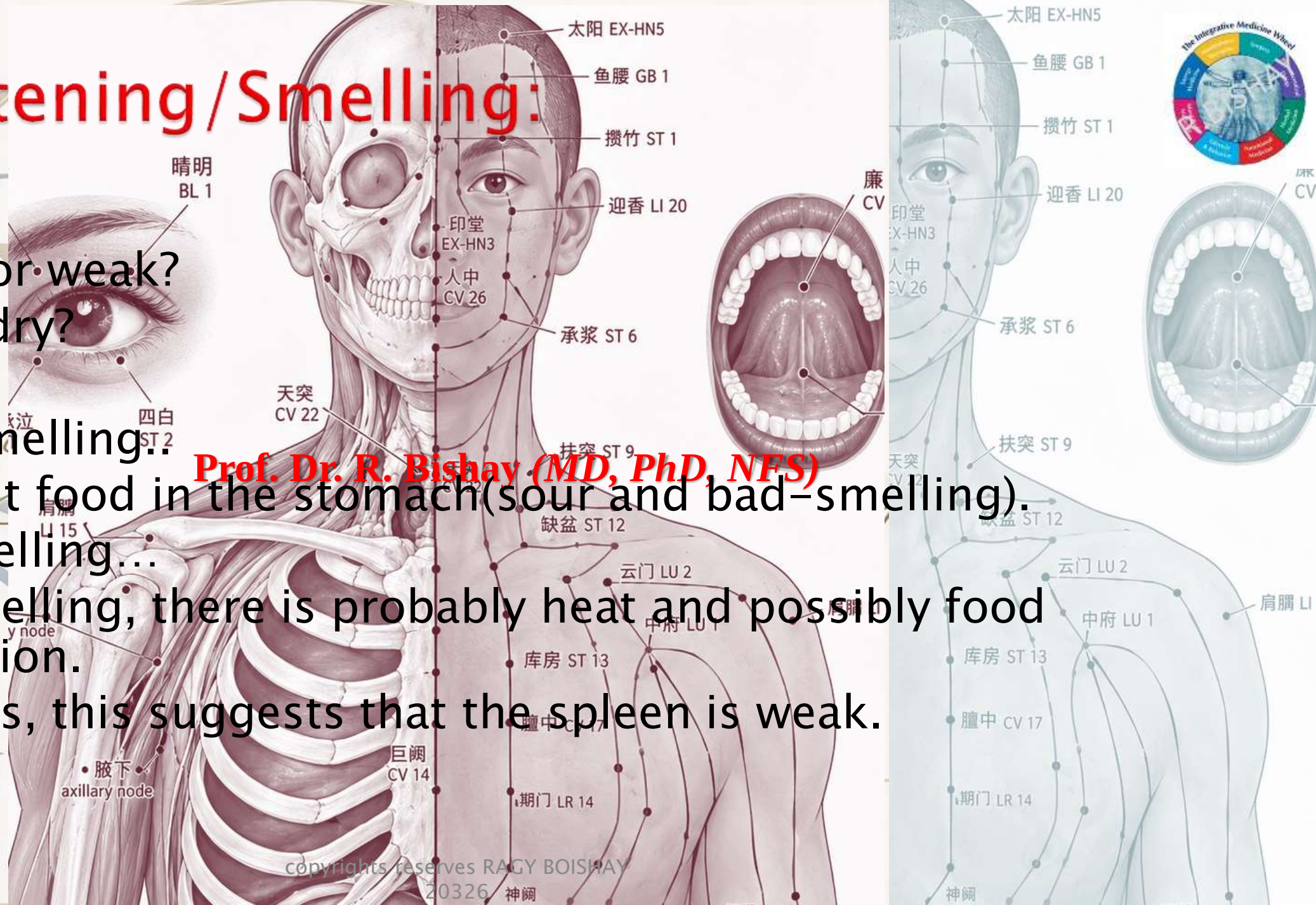
- Strong or weak?
- Wet or dry?

Breath smelling..

- Stagnant food in the stomach(sour and bad-smelling).

Stool smelling...

- Foul smelling, there is probably heat and possibly food stagnation.
- Odorless, this suggests that the spleen is weak.



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Feeling:

- ▶ When the child first comes in, the practitioner will usually pat the child's head and the side of their face. The parent may not know this, but the practitioner has already begun their diagnosis. By patting the head gently, the practitioner is seeing if the fontanelle has closed properly for the baby's age.
- ▶ By patting the baby's cheek, they can tell if the baby is hot or cold.
- ▶ They may then take the child's hands to play with, but while playing, they are also assessing whether the child is hot or cold.
- ▶ At some point in the examination, the practitioner will probably lie the child on their back and feel their abdomen. Is it too hot or cold? Is it too firm and distended or too slack and infirm?

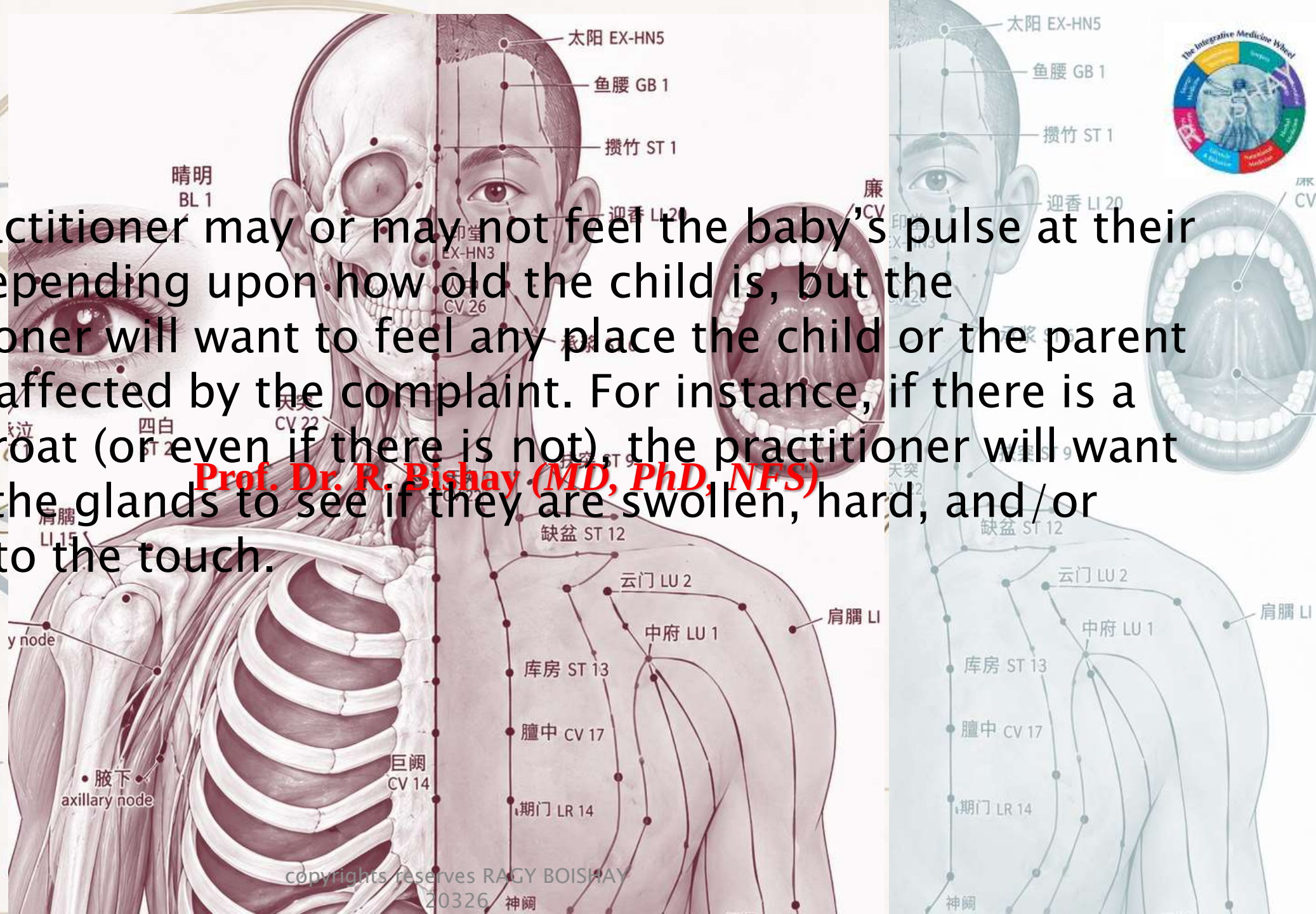
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- ▶ The practitioner may or may not feel the baby's pulse at their wrist depending upon how old the child is, but the practitioner will want to feel any place the child or the parent says is affected by the complaint. For instance, if there is a sore throat (or even if there is not), the practitioner will want to feel the glands to see if they are swollen, hard, and/or tender to the touch.

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Pulse examination:

- ▶ If the child is more than 2-3 years old, try to examine the child's pulse at the *cun opening on the wrists*.
- ▶ *The child's three positions are smaller than an adult's*, the practitioner will have to hold their three palpating fingers more closely together.
- ▶ When feeling the pulse on infants, one need only use a single finger to check all three positions and it is enough to check for strong or weak, slow or rapid pulses.
- ▶ A child's pulse is normally faster than an adult's. If one does not remember this, then one may mistake a cold for a hot disease.

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- ▶ According to Li Shi-zhen, the normal pulse rate for children between the ages of 3–5 years old is seven beats per respiration.
- ▶ Eight or nine beats per respiration cycle indicates heat, while four or five beats per respiration cycle indicates cold.
- ▶ A more modern interpretation is that: **Prof. Dr. R. Bishay (MD, PhD, NFS)**
- ▶ 120–140 beats per minute is a normal pulse rate in newborns
- ▶ 110–120 beats per minute is normal in a one-year-old
- ▶ 110 beats per minute is normal in a four-year-old
- ▶ 90 beats per minute is normal in an eight-year-old
- ▶ 75–80 beats per minute is normal in a 14-year-old.

