## The Key Elements of Fingernail Image Diagnosis

A fingernail image is a set of pathological Blood and Qi sign patterns seen in the fingernails. The formation of an image can be regarded as an external manifestation of a Blood and Qi disorder in the human body. A disorder can be a certain type of disease or a specific ailment of a body part. FID is able to identify the disorders that are related to Blood and Qi problems in the organs or body parts.

The fingernail image consists of three major components that can be used for identification and interpretation: shapes, colors, and distribution locations. Various shapes of fingernail images in different colors can be found in each fingernail depending on the disorder present. This chapter describes these components.

A fingernail image does not naturally appear in a fingernail when there is a Blood and Qi change due to a disorder. The image is not visible by simply looking at the surface of the fingernail. The fingernail image can only be made visible through the semi-transparent nail plates by manipulating and varying the amount and direction of pressure on each fingernail and each fingertip. Under normal conditions, when there is no specific disorder present, the fingernail image showing the color and shape to represent certain disorders will not be formed repeatedly at a certain location in the same fingernail. When a Blood and Qi problem does occur in a part of the body, it will be possible for a specific shaped fingernail image to be identified visually and repeatedly at a certain location of the fingernail corresponding to the disorder in the affected part of the body.

## 3.1 Shapes of fingernail images

Shape is an important visual feature of an image, and is one of the basic features used to describe image content. In physics, shape is usually an enclosed area or space distinguished from its surroundings and often defined by a contour line. The boundary may be a line, or it may be implied by a change in color. It has height and width and is usually considered two-dimensional. The shapes of fingernail images cannot be considered as a visual two-dimensional silhouette, symbol, or geometrical shadow shape of Blood-Qi formation underneath the fingernail. Clinical practice has found that there are over 20 different shapes; they can be divided into six categories (Table 3.1).

Table 3.1: Shape categories of fingernail images

Category	Shape
Round	Round, dot or spot, oval, and ring
Half round	Half round, half-ellipse, semi-circle, and crescent
Line	Strip or bar (oblique, straight, wide), hook, dumbbell-shaped bar, splayed (人-shaped), double lines, and wavy
Flake	Roughly rectangle, half-flake, slice, fuzzy, and mist-like or cloud-like
Triangle	Triangle
Spider	Spider, pear, cauliflower-like, and multi-grain shape

The various shapes of fingernail images can be drawn as similar geometric shapes (see Figure 3.1).



Figure 3.1: Shape categories of fingernail images

Extract from Fundamentals of Chinese Fingernail Image Diagnosis (FID) by Dr. Jie-Jia Li, Dr. Jian-Ping Fu and Dr. Jack Li.
The full book is available to purchase from www.singingdragon.com

The type of fingernail image shapes is important in the interpretation of Blood and Qi problems. Not only will the shape reflect the pathological changes of Blood and Qi in TCM, they also relate to a lot of disease patterns described in Western medicine. Each shape of the fingernail image typically signifies a certain indication of Qi and Blood changes that suggest a certain type of disease or disorder. The six common shapes of fingernail images are introduced below.

- 1. **Round shape:** This includes fingernail images that appear to be round, dots or spots, ovals, and rings. These approximated shapes usually indicate and reflect Qi stagnation and Blood stasis in a part of the body. Qi stagnation refers to Qi that does not circulate freely, becomes stagnant, and causes distension, distress, and pain. Blood stasis refers to impaired blood circulation and microcirculation caused by certain pathological disturbances, which lead to retention of blood in the vessels or an overflow of blood out of the vessels, causing Blood stasis. Qi stagnation and Blood stasis syndrome are an important underlying pathology, and the pattern of many disease processes according to TCM. This type of shape may often be seen in pain, tumors, and a localized body part in response to an injury. A large round image means slow-moving local blood circulation, while a small-sized shape means blood flow tends to become stagnant. The dot shape manifests a Blood stasis, which describes a situation where the blood isn't moving as well as it should be, and is often moving very slowly or is stuck. An oval shape often shows that the local blood circulation is in the middle of a transitional period of Blood stasis. The ring shape is not often seen alone; it is mainly around the periphery of the dot shape. It indicates a more severe degree of Blood stasis and is seen more frequently in cancer or severe visceral injuries.
- 2. **Half round shape**: The half round, half-ellipse, or semi-circle and crescent shapes relate to inflammatory disorders that often occur in the gastrointestinal and urinary tracts and the respiratory system, such as cholecystitis, chronic nephritis, or pneumonia.
- 3. **Line shape**: This includes shapes that are a straight strip or bar, oblique strip or bar, double line, wide strip, splayed (八-shaped), dumbbell-shaped bar, hook, or wavy. The line shape can vary in length and width. It indicates problems with impaired or inadequate blood flow or to increased vascularization in an organ and tissue; for example, a brilliant red line indicates congestive inflammatory changes in Qi and

Blood stagnation. A dusky red wavy or curved line indicates ischemic lesions caused by Qi and Blood stagnation/deficiency. Commonly seen conditions showing the oblique strip images include pain and inflammation. A straight strip may indicate hypertension, tachycardia, or prostatitis; a wide strip may indicate bradycardia; a double strip may indicate an eye with astigmatism or trigeminal neuralgia; or a splayed shape in the middle square of the center of the right ring fingernail may indicate chronic pancreatitis. Other conditions manifesting the line shape include respiratory inflammation and glaucoma.

- 4. **Flake shape**: The flake shape is often shown as irregular polygons, such as a half-flake, slice, roughly rectangle, and fuzzy flake, or a mist-like or cloud-like shape. The flake shapes indicate that the human body may be in a state of slow blood circulation or have invisible phlegm in a part of the body. Broadly speaking, phlegm in TCM refers to congestion of the body's fluid metabolism in the internal organs, caused by Qi stagnation. Phlegm can be divided into two types: visible and invisible. Visible phlegm, also called sputum or mucus, is usually produced by the respiratory system with coughs. Invisible phlegm is the thicker retention of body fluid pathological products accumulated in the organs, meridians, and tissues of the body. Flake images often show disorders of the head or eye, digestive disorders, and other conditions such as dizziness, lightheadedness, vertigo, vision loss, cataracts, asthma, gastritis, stomach cancer, and abdominal gas (belching, bloating, flatulence).
- 5. **Triangle shape**: Triangles and inverted triangles are often associated with the pathological changes of hyperplasia, hypertrophy, and enlargement, such as hepatomegaly (liver enlargement), prostatic hypertrophy, hemorrhoids, or maxillary sinus hypertrophy.
- 6. **Spider shape**: The spider shape includes pear shape, cauliflower-like shape, or multi-grain shape and is commonly seen in tumor disorders. Advanced stages of cancer can be represented by the spider shape or cauliflower-like shape.

## 3.2 Colors of fingernail images

Color is created by the spectrum of light (distribution of light power versus wavelength) interacting in the eye with the spectral sensitivities of the light receptors. It is the visual perceptual property in humans that corresponds to

the categories of color. In medicine, color can be considered as a biological marker that represents the pathological changes in the human body as a sign of a disorder or a symptom. The five elements of TCM, Wood, Fire, Earth, Metal, and Water, which are used for describing interactions and relationships among many body phenomena, all have a corresponding color property:

**Wood**: Green-blue.

• Fire: Red.

Earth: Yellow.Metal: White.

Water: Black.

Inspecting the color changes of a special part of the body, such as complexion or tongue, can show TCM disease patterns of heat and cold, excess and deficiency, and others. Green-blue often implies the cold syndrome in an excess condition, the pain syndrome, and Blood stasis. Red implies the heat syndrome or inflammation. Yellow implies dampness; for example, a bright yellow caused by pathogenic damp-heat or a dark yellow due to pathogenic damp-cold. White implies the cold pattern, deficiency pattern, and loss of blood. Black implies the cold syndrome in a deficiency condition, water retention, serious pain syndrome, severe Blood stasis, and severe injury.

Normally, a person has a healthy lustrous pink color of the blood shadow in a fingernail, which indicates there is good blood flow to the nail bed and an oxygen-rich blood flow that circulates throughout the body. The ruddy pink color may change temporarily under the influence of climate, physical activities, and emotions. In FID, all colors under the fingernails apart from pink can be considered abnormal—they appear when someone is ill. Observing the color of the fingernail image not only helps to determine whether the body has an abundance or deficiency of Blood and Qi, but also gives an indication of the Blood-Qi pathological conditions for estimating the nature, severity, and duration of a disease. Abnormal colors in a fingernail image can be classified into eight categories: red, crimson, purple, gray, black, white, yellowish, and mixed colors.

1. **Red**: Red images usually correspond to a variety of acute, chronic inflammation, or infectious diseases. The scope of the red color includes bright red and light red. Bright red indicates acute inflammation or acute attack of chronic inflammation due to excessively full blood vessels or excessive heat. Light red (pale red) usually indicates

- inadequate Blood-Qi, debility, hypo-function, and chronic or intermittent inflammation.
- 2. **Crimson (deep red)**: This is darker than red; however, the causes of crimson images are the same as for red. They indicate Blood stagnation that is caused by damage to blood due to excessive heat. For example, chronic or intermittent inflammation typically causes pain, and chronic pain usually presents a crimson color. If the crimson color becomes a lighter shade of red, it indicates the pain is intermittent. If the light red color becomes a bright red or crimson color, it indicates the pain is in chronic, recurring periods.
- 3. **Purple**: This is a range of hues of color occurring between red and blue. The purple color with deep red coloration can present as purplish, bluish-purplish, bluish-blackish, or pale purple. In FID, the purple color represents a manifestation of Qi and Blood obstruction in the body. Generally, a purplish color indicates stagnation of Qi and Blood that is a slow and unsmooth flow of a pathological state. A pale purple indicates contraction of vessels and coagulation of pathogenic cold and Blood. A reddish-purple indicates heat and Blood stagnation or an attack of inflammation. A bluish-purple color or bluish-black color means severe Blood stasis, which is commonly seen in injury and a severe disorder.
- 4. **Gray**: Gray is a color that is between black and white and is usually due to the consumption of body fluids by excessive heat. The gray color includes gray white and gray black. It is often seen for dizziness symptoms or different stages of cancer.
- 5. **Black**: The black color includes light black, dark black, black purple, and black blue. The presentation of the black color is usually due to Blood stasis with extreme heat or cold. This is often seen in serious conditions and stages of a condition. Conditions that present the black color image include a variety of malignant tumors or severe cardiovascular disorders.
- 6. White: In FID, the white color image is described as pallor—a grayish-white color. Sometimes, the color white refers to almost colorless or an empty part in a shape. A white color usually indicates Blood and Qi deficiency. It may also indicate an injury or disorder in the organs of the digestive system and metabolic system, such as severe diabetes.

- Occasionally, the white color image may be seen for years after organ removal surgery or calcifications in tuberculosis (TB).
- 7. **Yellowish**: The common yellowish colors in a fingernail image include light yellow, dark yellow, or golden yellow. A yellowish color reflects that a part of the body has been damaged for a long period of time. It is often seen in chronic injury that is present for more than five years or metastatic cancer. However, the yellowish color rarely appears alone; the shades of yellow are usually mixed with other colors.
- 8. **Mixed colors**: A multicolored shape in a fingernail image indicates that an illness may be more serious and complex than if a single color is present. For example, if the gray white color is mixed with the pale yellow color, it indicates that the blood circulation in the body is in hypoxemia (low oxygen tension in the blood) and the severity of an illness has increased. If a dot or spider gray or dark red-colored shape is wrapping around a ring-shaped line with golden color, it is a warning signal of a cancer metastasis or distant metastases, or possible recurrence of cancer.

## 3.3 Luster and density of fingernail images

The luster of a fingernail image is the way its surface reflects light, which can be viewed as the external manifestations of Qi in the body. In a healthy body, the normal luster of fingernail Blood and Qi color can be described as flourishing, smooth, and bright/shiny. The sickly luster of a fingernail image color can be described as gloomy, dull, withered, or lusterless. The sick luster may reflect a serious degree of pathological changes in the body. Difference in color depth is often proportional to the nature or degree of severity for a particular problem found in the body. The degree of the color depth of the fingernail image is called the density and can be described in three categories: low, normal, and high. For example, a gray color dot shape that is lusterless and has high density can often be seen in cases of malignant tumors.

Color and luster are not static. Colors relate to each other and can mix to form different colors. Many factors can affect how the observer interprets a color and its luster, such as lights, temperatures, physical activities, and emotions. This means that color can be a vague concept that lacks a fixed, standard, and precise meaning. Inspecting color is always viewed as a difficult procedure in the TCM diagnostic process.