

TCVM FOR LIVER DISEASE IN CANINES

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Traditional Chinese Veterinary Medicine (TCVM) includes nutrition, herbal medicine, Tui-na and acupuncture. All these modalities are helpful for treating liver disease in dogs.

The canine liver is a vital organ with several functions. It produces bile, which aids in excreting material and absorbing and digesting fats. The liver also stores and metabolizes fat-soluble vitamins such as D and K, and metabolizes and detoxifies drugs. Diseases of the liver interfere with these functions, affecting overall health and quality of life, but the various modalities offered by Traditional Chinese Veterinary Medicine (TCVM) can help.

CAUSES OF LIVER DISEASE

Injury to the liver can be caused by many factors, such as some medications and foods, viruses (e.g. infectious canine hepatitis), bacteria (e.g. leptospirosis), fungal organisms (e.g. histoplasmosis and coccidiomycosis), parasites (e.g. *Toxoplasma gondii* and *Leishmania*) and congenital and genetic diseases (e.g. microvascular dysplasia and copper storage

disease). Liver damage can also occur secondary to endocrine diseases such as diabetes mellitus, hyperadrenocorticism and hyperthyroidism. Cancers of the liver can be primary, especially in older dogs, while secondary metastases can arise from lymphoma and many other metastatic neoplasias.

TCVM DIAGNOSIS OF LIVER DISEASE

If the TCVM diagnosis is liver heat, liver yin deficiency, liver damp heat or liver qi stagnation, you may see red, swollen, painful dry eyes, hot feet possibly with lesions, and damp hot ear inflammation along with the typical anorexia and vomiting, and possible jaundice. Liver blood deficiency can affect the tendons and ligaments, leading to cruciate ruptures; and the eyes, leading to dryness.

NUTRITION IS KEY TO TCVM TREATMENT

Nutrition is important in the TCVM treatment of liver disease. Many dogs with liver disease have poor appetites, which is attributed to liver spleen disharmony. If there is no free flow of Qi in the liver, the gut is affected.

- Along with milk thistle, which is not only a supplement but a food, dark leafy green vegetables are very helpful in relieving liver Qi stagnation.
- Dandelions, as long as they are not sprayed, can be pureed and mixed with canned dog food. If the dog is weak, the greens can be steamed or boiled, since Qi-deficient dogs digest cooked vegetables more easily than raw.
- Other dark leafy greens that help relieve Qi stagnation and tonify Yin (increase cooling in the body) are kale, collards, mustard greens, spinach, broccoli and chard. Be careful in dogs who are prone to calcium oxalate uroliths, as some of these vegetables contain oxalates.

- Celery is an excellent Yin tonifier and damp drainer. Cooking and pureeing is the best way to add celery to the dog's diet.

- Any edible mushroom drains damp. In liver disease, damp is seen as jaundice, hot feet, skin or mucous membrane lesions, and damp ear discharge. Mushrooms can be added as powdered supplements or chopped and added to food.

- Feeding liver, such as freeze-dried liver treats, tonifies liver blood deficiency.

- If a dog has liver heat or liver damp heat, as described above, avoid heating foods such as lamb and venison. »

TCVM CAN HELP WITH EARLIER DIAGNOSIS

In TCVM, the liver is regarded as a blood storage container. It allows the free flow of Qi (life force) through the body, controls tendons and ligaments, peripheral nerves and gut function, and opens to the eyes.

These functions let us see liver disease earlier than may be found with Western examination and blood work.



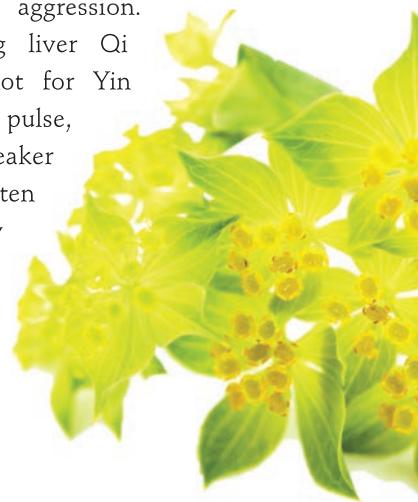
- Liver cold damp is rarely seen, but a dog with this problem would be cold rather than hot, with cold ears and feet, no redness, and a desire for warmth, along with slippery pulses. These dogs will prefer more warming foods, including chicken, which has a warming quality.

THE SIGNIFICANCE OF WIRY PULSES

TCVM tells us that liver is associated with wiry pulses, especially at the liver location, which is the middle left femoral pulse on the dog. Wiry pulses can manifest as a purple tongue, aggressive or irritable behavior, and red eyes. Some or all of these may be found on examining a dog with liver disease.

CHINESE HERBS

Chinese herbal medicine is very specific and depends on the TCVM diagnosis. Chai Hu Shu Gan is a main formula for liver Qi stagnation, diagnosed by a wiry pulse, purple tongue, irritability or aggression. Liver Happy is for treating liver Qi stagnation with heat, but not for Yin deficiency. Heat has an excess pulse, while Yin deficiency has a weaker left pulse. Yin deficiency is often seen in older or less chronically healthy dogs. Many other herbal formulas are used, depending on the specific TCVM diagnosis, and some will be mentioned in the cases on the next page.



TUI-NA AND ACUPUNCTURE

Tui-na uses Chinese massage techniques and is helpful in moving Qi in a dog with liver Qi stagnation, as long as the dog allows it. One technique called Nie-fa involves rolling the skin to the sides of the spine (not on the spine) from head to tail. This tonifies all organs as well as moving Qi and loosening fascia, which also helps the immune system. It should be started gradually with one to three rolls per day; more than that may be detrimental.

Acupuncture is very helpful in healing liver disease. Excellent points for liver Qi stagnation are LIV3, on the dorsal hind foot between metatarsals 1 and 2, and BL18. LIV3 can be very tender in a dog with liver issues, so the use of calming points such as AnShen or GV20 is recommended first. If the dog has liver Yin deficiency, SP6 may be needed; and if liver damp heat is present, GB34 is an excellent choice. Clients can be shown how to perform daily acupressure on these points, in addition to acupuncture.

References

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CASE STUDIES

SCOUT

An 11-year-old 17 kg poodle/Lab mix named Scout presented on July 30, 2015 with a history of seizures every three to four months for a year. He had been treated with phenobarbital and potassium bromide, which the client discontinued at an unknown date. Scout's last seizure occurred in the spring of 2015. He also suffered a fracture of the right forelimb proximal to the carpus at three months of age, with chronic limping of the right front limb. Abnormalities on his examination included a dry, warm nose, warm paws, crepitus of right carpus with warmth and thickening, wiry pulses, weaker spleen pulse and purple tongue.

Blood work from May 19 showed a normal CBC with ALT high at 371 U/L (reference range 10-118 U/L), and elevated total bilirubin 0.7 mg/dl (reference range 0.1-0.6 mg/dl). Free catch UA showed well concentrated urine with heavy triple phosphate crystals on microscopic exam in clinic.

Scout's TCVM diagnosis was liver Qi stagnation with Yin deficiency, stagnation (pain) of right carpus, and internal wind, which is one TCVM designation for seizures.

His treatment began with acupuncture, using small 38 gauge needles as he was very nervous and a bit irritable, designated a Wood/Fire constitution which is associated with the liver and heart. The acupuncture point AnShen, located behind the ears, is not only calming but moves internal wind to help prevent seizures, so his treatment began there. LIV3, SP6, BL60/KID3 and LI4 on the right were added to relieve liver Qi stagnation, tonify liver Yin, relieve pain, help the bone and locally help the carpus.

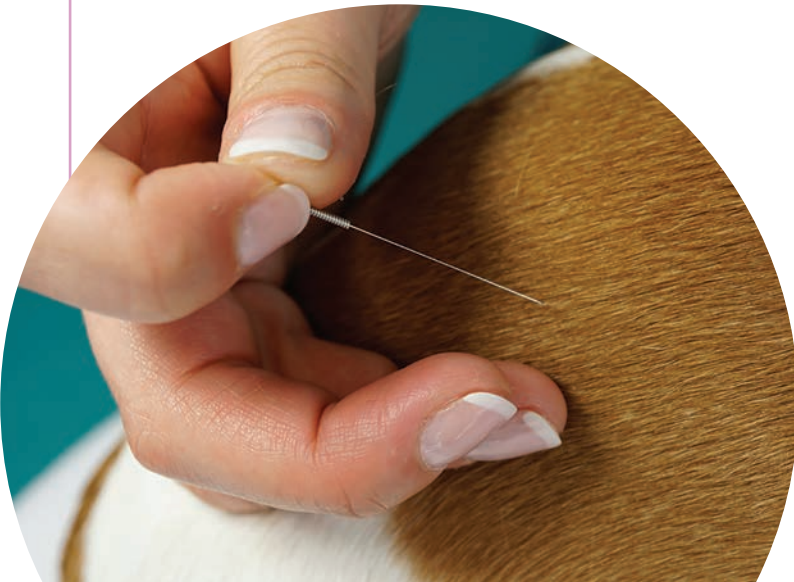
The herbal medicine Di Gu Pi1 was dispensed to help relieve pain and tonify Yin in the carpus. At this time, the client declined herbs to move liver Qi and tonify Yin. It was recommended that dark leafy greens and liver (as freeze-dried treats) be added to the diet to relieve liver Qi stagnation and tonify Yin. Nie-fa was demonstrated for the client to perform once daily to keep Scout more comfortable.



Scout in April 2022, at 18 years of age.

At Scout's next appointment on August 15, his exam was similar, and the client said he was much better after his first treatment, had no seizures but had just begun limping again. Herbs for liver Qi stagnation and Yin tonification were recommended but declined. Shorter walks were recommended but were also declined. By Scout's third treatment, his nose was cold and wet.

The client was away in October and Scout refused to eat. His ALT increased to 1559 U/L and preprandial bile acids were 52 umol/L (reference range 0-12 umol/L), with postprandial 178 umol/L (reference range 5-25 umol/L), indicating a significant



decrease in liver function. Stress strongly affects the liver in a dog with a Wood personality. Scout was started on the herbal formulas Liver Happy (for liver Qi stagnation with heat) and Yi Guan Jian (to tonify liver Yin). By January 2016, he was acting like a puppy and playing a lot, according to the client, which was a significant change.

By August of that year, the client had run out of the herbs for a month and the family had gone on vacation without Scout. When they returned, Scout was anorexic and his ALT was >2000 U/L, so the client re-ordered the herbs. Scout was icteric on examination and acupuncture was repeated, adding GB34 and SP9 to drain damp and LIV13 for liver/spleen disharmony. Within a day, Scout's normal energy and appetite returned.

He continued to do well, walking at least half a mile daily with one to three acupuncture treatments per year, along with herbal medicine and daily Nie-fa until July 2022, seven years later, when he was euthanized at 18 years of age.



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LOKI

Loki, a ten-year-old neutered male Australian shepherd, presented in 2008 with a history of severe liver disease, hepatocutaneous syndrome, and diabetes mellitus. He was receiving 20 units of NPH insulin twice daily. He had been unable to stand or walk for a week, and needed to be carried, held up to urinate and defecate, and be hand fed. On examination, he was obtunded, hot to the touch but also with damp heat rising off his body. His pulses were thin and wiry, his tongue was red with a yellow coat. All four of his feet had thick yellowish crusts on the pads and appeared ulcerated under the crusts. His coat was dry, brittle and discolored. He had thick red elbow calluses. Mucous membranes appeared red but on depression appeared slightly icteric.

Loki's TCVM diagnosis was liver damp heat with Yin deficiency. He received acupuncture to drain damp (SP9), cool (GB34), tonify Yin (SP6), relieve pain (LIV3, BL60/KID3), and strengthen (ST36). Herbs were ordered to help drain damp and clear heat, beginning with Artemisia Combination. Cooked dark leafy greens, celery and button mushrooms were added to his diet to cool and clear liver Qi stagnation, along with cooked beef liver. To help strengthen Loki, Nie-fa was demonstrated to the client to be done once a day. Within three days, Loki was able to stand on his own.

In addition to Artemisia Combination, the herbal formula Jiang Tang Cha was added to tonify Qi and Yin, and clear heat to help regulate Loki's diabetes mellitus. Acupuncture was done every week for several weeks, then decreased to monthly, then even less frequently as he became more energetic. Loki began to play ball again within a month, and continued to do well with a good quality of life until 2010, at the age of nearly 13.

