

To the point – the basics of bovine acupuncture

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Abstract

Acupuncture is recognized these days by many institutions as an effective complementary therapeutic technique both in human and veterinary medicine. Acupuncture is only one of several treatment modalities within Traditional Chinese Veterinary Medicine (TCVM), but it is the one that shows the fastest effects. Although most acupuncture treatments require a careful selection of appropriate acupoints for each individual patient, there are several acupoints with such a specific and potent effect on the body that they can be used by themselves, in conjunction with Western therapy to expedite healing. This is the case with GV14 for fever or immunostimulation, GV26 for resuscitation, CV9 for edema, *Shan-gen* for appetite stimulation, *An-shen* for sedation, and BL20 and BL21 as a pair for digestive disorders. Their location and function are explained. The intention of this clinical skills presentation is to provide Western practitioners with additional tools that can be used along with the customary Western therapeutic approach to help our patients heal faster.

Key words: acupuncture, Chinese medicine, complementary therapy, TCVM, healing

Introduction

The AVMA recognizes acupuncture as a “complementary, alternative and integrative therapy” and has included it in the Model Veterinary Practice Act, updated in 2021.¹ As of 2021, 23 U.S. states specifically recognize acupuncture as protected veterinary practice and 13 veterinary colleges across the U.S. and Canada offer courses that teach acupuncture.²

Acupuncture is one of 5 therapeutic modalities included under the term Traditional Chinese Medicine (TCM), along with *Tui-na* (massage therapy and joint manipulation), herbal therapy, food therapy and *Qi-gong* (movement exercise). Veterinarians have their own acronym: TCVM (Traditional Chinese Veterinary Medicine), which does not include *Qi-gong*; making animals take certain postures using specific muscles has not been widely pursued, yet. These therapeutic modalities closely mimic several specialties in Western medicine like internal medicine, anesthesia, neurology, pharmacology, nutrition and preventive medicine. However, most people still only recognize acupuncture as a modality of Chinese medicine, because it is the most unique and fastest to achieve an effect (a few seconds to a few minutes, depending on the chronicity of the condition). *Tui-na* is not widely known by its Chinese term, but massage therapy is becoming a broadly used therapeutic modality along with chiropractic manipulations. *Tui-na* is the next modality with fast results (minutes), followed in order by herbal therapy (minutes, hours or days depending on the formula and the chronicity of the condition) and food therapy (weeks). For a more detailed summary on how acupuncture works, please refer to the 2021 webinar on the AABP website “You don’t believe in acupuncture? As an epidemiologist, neither did I and now I hold 3 certifications”.³

The purpose of this clinical skills presentation is to provide the reader with a few very useful points that anyone can use in practice along with typical Western therapeutic modalities to help our animal patients recover faster. It is also expected that readers will question some of their normal practice procedures, as they may be applied at an acupoint location triggering collateral physiological effects.

Material needed

One of the most typical questions is what needles should be used. There are special acupuncture needles with a solid core that, unlike hypodermic needles, do not cause damage to the tissue. Additionally, they come in much smaller diameters than hypodermic needles. The cost of both types of needles is similar. A rule of thumb is to use the smallest diameter possible for each animal. If no acupuncture needles are available, the patient will still benefit from the effect of a hypodermic needle, although your patients will appreciate it if you use the acupuncture needles.

Because some points are very shallow and others are very deep, it is recommended to have at least 2 lengths of needles: short (½-inch) and medium (1½-inch). Needles longer than 2 inches are used for acupuncture, but typically only in the area of the rump and hindlegs, or in angle insertions at specific points. These will not be explained here, as they require more involved knowledge.

Acupuncture methods

Dry needling

This is the technique most people associate with acupuncture, where needles are inserted directly into the body. Needles are typically left in for about 30 minutes, because it takes 28 minutes for the Qi to cycle through all the meridians. If an animal has a lot of energy inside, which is called an “excess” state, it is possible to see the needles coming out within a few minutes. It is OK, there is no need to put the needles back in.

Sometimes, after taking the needles out, it is possible to have a drop of blood or a trickle. Typically, this blood will be very dark (toxic). It is not a problem, and no intervention is typically needed unless a vessel was perforated, which is extremely rare. In this case, simple pressure on the bleeding site will stop the problem.

Aquapuncture

This is a technique where a liquid is injected into the acupoint area. Vitamin B12 is one of the most preferred solutions to be injected, because it is sterile, helpful as a vitamin, and it is not immediately absorbed like saline would be. Therefore, it stays in the area stimulating the acupoint for a longer time than most needles can be left in place.

Circling the dragon

This is a technique used in situations where there is a circumscribed problem, such as a laceration, a scar, a bruise, a mass, or even an entire eye. Circling the dragon implies surrounding the affected area with needles, closing a circle around it. This is a very useful technique to help with healing of open wounds that cannot be sutured together, or to help heal faster and neater in case of a show animal, for example.

Important acupuncture points that can be used by themselves

GV14 (governing vessel)

Location: Dorsal midline, in front of the shoulder blades, where the dorsal process of T1 ends.

Needle size: At least 1.5-inch long for an adult cow (no more than 18G), 1-inch long for a calf (no more than 20 G).

Indications: Thermoregulation problems (fever AND cold shock), and immune stimulation.

Time to effect: 20 minutes.

Preliminary data from a study in progress with Oregon State University veterinary students using an 18 G × 1.5-inch hypodermic needle at acupoint GV14 to reduce fever in dairy cows show a significant difference in temperature drop of 1 degree Fahrenheit 20 minutes after acupuncture, compared to a 20-minute control period where temperature remained constant.⁴ Results from a study of serologic response in dogs comparing inoculation with distemper virus at acupoint GV14 vs. subcutaneously on the right side of the neck, show that significantly more dogs responded with a larger change in titers when inoculated on acupoint GV14.⁵

Shan-gen

Location: Dorsal midline of the muzzle, where the hair ends and the muzzle begins.

Needle size: Best is a tuberculin needle, otherwise, no more than 24 G, and no more than ½-inch long.

Indication: Anorexia (appetite stimulant).

Time to effect: Seconds to minutes, depending on how long it has been since the animal is anorectic.

This is a cow-specific acupuncture point. This doesn't mean it will not work on other species, but it was first reported in cattle. Insert the needle perpendicular all the way to the hub (no more than ½-inch long needle!).

Caution: Make sure to remove all the feed in front of the animal because they may start eating right away and lose the needle in the feed.

CV9 (conception vessel)

Location: Ventral midline, ¼ way from the umbilicus to the xyphoid.

Needle size: Depends on the amount of edema, you want to touch the body wall if possible.

Indication: Edema.

Time to effect: 24-48 hours.

Although the effect starts immediately after placing the needle, the results will not be visible immediately. It will take some time for the animal to eliminate the accumulated fluid.

An-shen

Location: Behind the ear, in the same spot where Excede® is injected.

Needle size: Not more than 1-inch long, preferably 20 G or smaller.

Indication: Sedation.

Time to effect: 1-5 minutes.

This is a point where it may be easier to inject 2-3 mL of vitamin B12. This will prolong the sedative effect and reduce possible problems with needles hitting against the neckrails.

GV26 (governing vessel)

Location: Midline in the muzzle, in the philtrum, lined up with the ventral border of the nostrils.

Needle size: Tuberculin needle.

Indication: Resuscitation.

Time to effect: Seconds.

If the animal doesn't respond within a few seconds, the needle can be moved CLOCKWISE to stimulate (counterclockwise is used for sedation, and that would be counterproductive in this situation!).

BL20 and BL21 (bladder meridian)

These are 4 points in total, 2 sets of 2 points, as they are located on either side of the spine.

Location: Bilaterally, on the back, between the last 2 ribs (BL20), and behind the last rib (BL21) about 1-3 fingers from the spine (1 finger in young calves, 3 fingers in large cows). A slight depression will be palpable in the correct spot.

Needle size: No larger than 24 G × ½-inch for calves (tuberculin needles could work well in baby calves), and no larger than 22 G × 1-inch for adult cows.

Indication: Any digestive problem.

Time to effect: 1-5 minutes.

This is a combination of 2 bilateral points. BL20 stimulates the spleen meridian, while BL21 stimulates the stomach meridian. Both meridians together govern all the energy of the entire digestive system.

TCVM is not a fix-all, but it does help correct things that Western medicine still has not been able to correct by itself at the same speed as TCVM can achieve. TCVM represents an entire field of medicine, with a lot of interdependencies and interactions between meridians and specific acupoints, as well as constitutional characteristics of each individual animal. Therefore, TCVM requires extensive training to understand it and being able to combine different points as appropriate for each patient. The intention of this clinical skills presentation is to provide Western practitioners with a few extra tools to help them in their daily practice, and maybe open their mind up to other therapeutic options.

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