

Acupuncture as a Therapeutic Tool in Health Disorders in Animals: a Review

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Abstract

This review is about acupuncture defining elements as one of the safest methods that can be used also in veterinary therapy. In the past 20 years many veterinarians in Europe started to practice in their offices only in animal acupuncture. Acupuncture is a complex system of diagnosis, treatment and diseases prevention, based on body's reflex action, due to the skin's stimulation with needles. Treatment involves precise points (acupoints) influencing on skin's surface in conjunction with certain internal organs and body functions. The aim is to strengthen and stimulate body's own homeostatic mechanisms. Knowing the acupoints and at what level can act in good sense, results can lead to eg.: pain inhibition, increased cardiac output, cough reflex suppression, bone healing and others causing therapeutic effects in a great variety of animal diseases. The indications of acupuncture are as: primary therapy, adjunctive therapy support, or back-up therapy, as alternative one, when allopathic treatments are insufficient. Acupuncture can be used simultaneously with traditional therapies being compatible with non-traditional and holistic veterinary approaches (eg. homeopathy, chiropractic). Applicability of acupuncture is presented from Asian and Western perspective, are presented acupuncture's current theories (eg electrical, humoral, neurophysiological), directions, main indications, limitations vs. indications, advantages, disadvantages etc.

Key words: elements, indications, limits, veterinary acupuncture.

1. Introduction

Algia in humans and animals is a physiological protective mechanism type, which determines the subject affected. Pain can become itself a source of injuries to the body (pathological pain); if the pain becomes too severe process often becoming dangerous to animal life [1, 2, 3].

Beyond the protective state, pain, very rarely, is useful body is often associated with major physiological changes, often lethal. It is generally accepted that acupuncture originated in China, although there are some dating as it was originally practiced in northern India and Tibet, where China has expanded [4, 5].

Acupuncture (fr. *acupuncture*) is a complex system of diagnosis, treatment and prevention, based on ancient theories of Traditional Chinese

Medicine (TMC) focusing on the reflex action of the body, due to the skin's insertion, at certain points. Traditionally, solid steel fine metal needles are inserted in acupuncture points. Like other therapeutic modalities veterinary acupuncture is to strengthen and stimulate the body generally, its own homeostatic mechanisms adapted (physiological balance). This treatment involves influencing precise points, or near, the surface of the body known as acupuncture points in conjunction with the internal organs and body protective functions [1, 2, 3, 4].

2. The acupuncture as healing mean

2.1. Asian perspective

Traditional Chinese Medicine orderly describes a system or network of inter-connecting channels and meridians that exist in predictable locations

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throughout the body. There are 14 main meridians that flow out: *qi*"(*chi*) [5, 6, 7, 8].

Qi is thought of as energy, a vital force supported, which regulate body functions, as it circulates continuously through the meridian system. To maintain health is essential that energy, *qi* "to flow in a smooth, harmonious and free [1, 4, 5, 8].

Internally major meridians connect and communicate with specific organs. Most diseases and injuries are caused or accompanied by disturbances in the flow and balance of *qi*. In consequence, *qi* function disorders can be influenced by treating acupuncture points. Most acupuncture points are located in a specific anatomical area where a meridian comes close to the body. People generally considered having 365 classical acupuncture points associated with major meridians *Animals have acupoints that are perfectly correlated with those in humans* [4, 9].

Although most of these points are used in modern veterinary acupuncture is interesting to note that some domestic animals there are unprecedented in humans. Most points have a diameter varying from 1.5 to 3.0 mm and are characterized by high electrical conductivity compared to the skin. Behavior and function of *qi* energy is described by TCM theories (e.g. theory of *yin-yang*, theory of five elements and the eight principles *ba-gang*. These theories are the basis for a acupuncturist to identify, locate and characterize specific points of energetic disharmonies in animals [9, 10, 11, 12].

Before an animal can be treated, a TCM diagnosis is required. A single point of acupuncture in a group of points will be selected to correct the patient's energy excesses and/or deficiencies. Acupuncture itself works like an opener/ lock the doors or gates that block a waterway.

The needle will inhibit or allow energy to move from one trajectory to another. The above is intended to correct energy disturbances and allow the body to work into a normal manner. Patients treated, will heal generally rather than a palliative treatment or suppression [1, 5, 9].

2.2. Western perspective

Scientific investigations have yielded some clues about the functioning of acupuncture. It is important to recognize however, that so far, any modern theory cannot, by itself, explain in detail all the phenomena associated with acupuncture healing [5, 9, 13, 14].

2.2.1. Bio-electric theory

This theory suggests that the coordination and regulation of biological processes is physical, a chemical rather than electrical size [2].

This concept recognizes that energy is polarized electric fields in and around the body and around each cell. Furthermore, these electric fields are associated with a network of circuits that drive continuous current through the body. This trend is made by cells that form a completely different system management / neural cells, located near the nerve fibers. Unlike nerve cells, cells were per neuronal conductivity known as semi conductivity slower than normal sensory or motor nerve impulses [15, 16, 17, 18, 19].

Bioelectric current is responsive to electromagnetic forces and is responsible for initiating, coordinating and regulating body functions already demonstrated that it is very susceptible to influence by external electromagnetic fields. In this context: *acupoints are analogous amplifiers, meridians serve as means for driving and qi is comparable with bio electricity* [9, 15, 17, 18, 20]. According to this theory, acupuncture needles, affect body's bioelectricity in a beneficial way, assisting the body to return to the state where it can resume work in a normal control [5, 12].

2.2.2. Humoral Theory

Theory suggests that acupuncture works by releasing specific chemicals in the blood and other body fluids. For example, certain acupuncture points when stimulated, releases morphine-like substance that can alleviate the pain. For the best studied of humoral substances analgesia (pain reduction) are endorphins [6, 8, 20, 21, 22].

Acupuncture is known for its ability to stimulate the immune system. Antibodies are produced in larger quantities and white blood cells will be issued only in greater numbers, but presents a much enhanced by phagocytosis during microbial infections. In addition, acupuncture can be effective in treating many allergic-like reactions and harmful inflammatory reactions, autoimmune diseases and fever. There is evidence that this is because humoral substances are released after treatment by acupuncture [1, 2, 11].

2.2.3. Neuro-physiological theory

This theory assumes that acupuncture works because there is a physical relationship between

acupuncture points and peripheral nerves. It is well known yet, that a large number of neuro-receptors are nerve endings that transmit information, such as pain, heat or pressure, near or close to most points of acupuncture. In addition, most acupuncture points have a physical relationship with peripheral nerves. For example, acupuncture points are often located where nerves penetrate: major muscles, bones, tendons or blood vessels. Placed properly, acupuncture needles will communicate directly with specific neuro receptors, which in turn, will send specific messages through the body's autonomic nervous system. Knowing which are acupuncture points and at what level can act in effect beneficial results can be represented by: inhibition of pain increased cardiac output, suppression of cough reflex or stimulation of bone healing and much other dysfunction [7, 8, 12, 14, 17, 20].

2.3. The main indications for vet acupuncture

Acupuncture is known as having a good therapeutic effect in a variety of animal diseases. Although moderate pain is an important application in veterinary acupuncture, is much broader spectrum of applications, is considered to be most beneficial for functional disorders [5, 6]. Also, acupuncture may be effective approach for many structural problems. In addition to therapy, acupuncture is useful in clinical practice as a diagnostic tool. Many clinical conditions can be differentiated and localized exams using manual or instrumentation [5, 7, 9, 12].

Even when acupuncture is indicated it should be put in balance with existing alternatives. In addition, its owner, preferences and personal values must be considered carefully because not all situations are identical when responses are compared between species of domestic animals. For example in cattle, horses, dogs and cats can be especially useful for many neurological disorders, pain and gastrointestinal [16, 17, 18, 22, 23]. Acupuncture therapy can be considered as relevant in three main categories as: primary therapy, adjunctive supportive therapy, back-up therapy as an alternative. An advantage is that acupuncture can be used simultaneously with more traditional Western therapies and it is compatible with non-traditional and holistic approaches such homeopathy, phytotherapy, chiropractic etc. [1, 4, 5, 10, 19].

2.3.1. Indications of acupuncture

After multiple authors, in a synthetic classification, indications of acupuncture useful in veterinary therapy are presented in Table 1.

2.3.2. Limits of acupuncture

There are circumstances in which acupuncture is unnecessary or even contraindicated. For example if the animal has a fracture, it will require orthopedic surgery, acupuncture in this case serving to minimize postoperative pain, facilitate healing and to reduce the incidence of postoperative arthritis. An essential fact is related to the need for skill and knowledge of the clinician acupuncture procedures [1, 2, 4, 5].

Table 1. Indications of acupuncture in veterinary medicine [2, 5, 6, 9, 14, 19 21, 22, 23]

Group of affection	Helped functions
Gastro-intestinal	esophageal hypomotility, gastritis, atony, gastroenteritis, colitis, mega colon, rectal prolaps, chronic idiopathic diarrhea or vomiting
Respiratory	rhinitis, sinusitis, laryngitis, asthma, chronic cough, epistaxis, pneumonia;
Neurological	trigeminal neuralgia, peripheral nerve palsy, nystagmus, vestibular syndrome, torticollis, non-degenerative myelopathy, epilepsy, stroke, deafness, coma;
Musculoskeletal	chronic degenerative joint disease, inter vertebral disc disease, spondylosis, hip dysplasia, tendinitis, sprains, muscle spasms of trapezium muscle;
Reproductive, Endocrine, Metabolic	ovarian cysts, dystocia, placental retention, uterine prolaps, mastitis, udder edema, hepatitis, jaundice
Immunosuppressive, Allergic	natural allergens
Skin	sensory neuro-dermatitis, allergic dermatitis
Urinary	incontinence, cystitis, urinary retention
Medical emergencies	cardiac arrest, respiratory arrest

Generally acupuncture practitioners can record effectively efficiency low or zero to the specific procedures in the following situations: in advanced gestation, high fever can be treated with

acupuncture, but bacterial infections are better treated with an appropriate antibiotic, can alter effects of acupuncture: narcotics, tranquilizers, anticonvulsants, steroids, on evolutionary stage of

degenerative diseases (some should not be treated by acupuncture, except supportive and/or symptomatic therapy [10]. Acupuncture is not a primary treatment of cancer or malignant tumors.

2.3.3. Benefits of acupuncture

Usually, pain and discomfort associated with acupuncture treatment is absent or minimal. In fact, there is usually much less discomfort associated with treatment by acupuncture than by vaccination or hypodermic injection [5, 12].

Occasionally there is a brief moment of sensitivity, when an acupuncture needle penetrates the skin in sensitive areas. Once those are in place, most animals are relaxing some even fall asleep during treatment. Duration of treatment can vary from 10 seconds to 30 minutes. For many diseases, patients are treated one to three times a week for four to six weeks. A positive response can be observed after one or two treatments. In some cases, improvement may not be observed until the fifth or sixth treatment. Owners are often asked, or at least invited to attend.

2.3.4. Conduct before and after treatment

To enhance the treatment benefit is important to:

- avoid feeding effort, heavy exercise, or bathing immediately before or after treatment,
- rest after the acupuncture treatments will bring maximum benefit,
- after acupuncture can be taken any medicine.

After treatment it can be registered various changes, some may be transient and more sustained, some subtle, some obvious. For example, there may be a period of change in alertness or emotional status, such as peace, relaxation, sleep changes, increased sociability.

Other changes may include disturbances in appetite and bowel and urinary processes are important in patient. Nothing can replace proper nutrition, regular exercise and discretion (except where contraindicated) and adequate rest [5].

2.3.5. Undesirable effects and complications

Acupuncture is one of the safest methods of veterinary treatment when practiced by a competent acupuncturist [2, 14, 19, 21, 23].

Compared with other methods, side effects are rare. However, following side effects may occur:

- the rebound: this is worse symptoms up to 72 hours after treatment, followed by improvement. This is unusual and probably occurs in less than 5% of all patients. It is usually considered a good sign because patients are feeling much better after.
- depending on treatment an animal may show either excess of energy, or fatigue up to 48h.
- rarely, a needle may break the skin and subcutaneous tissue, sometimes a hematoma can occur when a blood vessel is broken. This may require minor surgery to remove, where other methods fail.

2.4. Main meridians in horses and dogs

In Table 2 are presented some of the main acupoints activities in animals, information taken entirely from Xie and Preast (2007) excellent book [5]. As was stated in this review there are a number of 14 meridians, both the horse and the dog. Each meridian is so called acupuncture points that can be numbered from 1 to 210, points where needles are inserted. These meridians spread around the body, as shown in fig. 1 and 2.

Table 2. Main acupoints in animals (after Xie and Preast) [5].

Points	Location	Method	Indication	Used
LUNG CHANNEL (LU)				
Thoracic Tai-yin: from chest to front foot.				
<i>LU-9 Tai-yuan (Great Abyss)</i>	On the medial side of the carpus at the junction of the radius and the first row of carpal bones, at the level of the accessory carpal bones	Perpendicular or oblique insertion: dry-needle depth 0.5 cun	<i>Shu</i> -stream point (earth), <i>Yuan</i> -source point, influential point for pulse and vessels. Chronic cough, asthma, heaves, weak voice, carpal joint pain	Commonly used point
<i>LU-11 Shao-shang (Minor Merchant)</i>	Caudomedial aspect of the front hoof, proximal to coronary band, just cranial to the medial collateral cartilage	Perpendicular insertion: dry-needle depth 0.5 cun, hemo-acupuncture for excess conditions	<i>Jing</i> -well point (wood). Asthma, bleeder, cough, allergy (dust, mold, pollen), nasal discharge, lung problems, fatigue, sole bruising, laminitis	Commonly used point
LARGE INTESTINE CHANNEL (LI)				
Thoracic limb Yang-ming: from front foot to head.				
<i>LI-1 Shang-yang (Merchant Yang)</i>	Craniomedial aspect of the front hoof, proximal to coronary band	Perpendicular insertion: dry-needle depth 0.5 cun, hemo-acupuncture for excess conditions	<i>Jing</i> -well point (metal). Nasal discharge, not wanting to be the leader in a race, shoulder pain or lameness, forelimb lameness, navicular disease, laminitis, side bone, ring-bone, pharyngitis	Very commonly used point
<i>LI-3</i>	On the craniomedial aspect of the fetlock, distal	Perpendicular	<i>Shu</i> -stream point (wood). Fetlock pain, tendonitis,	Commonly

<i>San-jian</i> (Third Space)	to the end of the splint (second metacarpal), over the interosseous mm.	insertion: dry-needle depth 0.5 cun	dental pain, diarrhea, abdominal fullness	used point
<i>LI-4</i> <i>He-gu</i> (Union Valley)	On the medial side of the foreleg, in the depression between the second metacarpal bone (splint) and third metacarpal bone (cannon) at the upper one-third of the distance from the carpus to the fetlock	Perpendicular insertion: dry-needle depth 0.5 cun	Master point for the face and mouth, <i>Yuan</i> -source point. Facial paralysis, dental problems, epistaxis, sore throat, anhidrosis (no sweater), tendonitis, fever, immunodeficiency	Very commonly used point
<i>LI-5</i> <i>Yang-xi</i> (Yang Ravine)	In a depression between the second and third carpal bones on the craniomedial aspect of the carpus	Perpendicular insertion: dry-needle depth 0.5 cun	<i>Jing</i> -river point (fire). Carpal pain, sore throat, dental pain, deafness, headache	Commonly used point
<i>LI-10</i> <i>Qian-san-li</i> (Front 3 Mile)	2 cun distal to LI-11, in the same groove as LI-5 and LI-6	Perpendicular insertion: dry-needle depth 1.5 cun	Thoracic three mile point. Diarrhea, colic, front limb paralysis, dental pain, general weakness; substitute for ST-36	Very commonly used point
<i>LI-11</i> <i>Qu-chi</i> (Pool on the Bend)	In a depression cranial to the elbow (lateral aspect), in the transverse cubital crease, cranial to lateral epicondyle of humerus	Perpendicular or oblique insertion: dry-needle depth 1.5 cun, aqua puncture depth 1 cun	He-sea point (earth, mother point). Sore throat, dental pain, uveitis, fever, hypertension, seizure, abdominal pain, diarrhea, front limb paralysis. Animal studies confirmed that strong stimulation at LI-11 and Lan-wei-xue (at 2 cun distal to ST-36) effectively relieved appendicitis and cecal disorder.	Very commonly used point
<i>LI-16</i> <i>Ju-gu</i> (Great Bone)	Along the cranial border of the scapula, in a depression 2/3 the distance from TH-15 to the point of the shoulder. (TH-15 is in a depression on dorsal border of scapula at junction of scapula and scapular cartilage.)	Perpendicular insertion: dry-needle depth 2 cun	Shoulder and elbow pain, forelimb lameness, forelimb paralysis	Commonly used point
<i>LI-17</i> <i>Tian-ding</i> Celestial Tripod	2 cun craniodorsal to L-16, on the brachyocephalic muscle	Perpendicular insertion: dry-needle depth 1.5 cun	Laryngeal hemiplegia, sore throat, thyroid disorders, carpal pain, chronic distal forelimb pain. Diagnostic point for carpal disease	Commonly used point

STOMACH CHANNEL (ST)

Pelvic limb *Yang-ming*: from the head to hind foot.

<i>ST-31</i> <i>Ju-liao</i> (or <i>Bi-guan</i>) (Thigh Joint)	In the depression 1.5 cun caudoventral to the lower border of tuber coxae	Perpendicular insertion: dry-needle depth 2 cun	<i>Wei</i> syndrome, colic, stifle pain or arthritis	Commonly used point
<i>ST-34</i> <i>Liang-qiu</i> (Beam Hill)	Two cun proximo-lateral to the patella, in the belly of muscle vastus lateralis	Perpendicular insertion: dry-needle depth 1.5 cun	<i>Xi</i> -cleft points, acute epigastric pain, stifle pain and swelling, paralysis of hind limb, urinary hemorrhage	Commonly used point
<i>ST-35</i> <i>Lue Cao</i> (Stifle)	Between the distal border of the patella and the proximal border of the tibia, in a depression between middle and lateral patellar ligament	Perpendicular insertion: dry-needle depth 1 cun	Ligament problems of the stifle, arthritis	Commonly used point
<i>ST-38</i> <i>Tiao-kou</i> Ribbon Openin	Two cun distal to ST-37, 0.5 cun lateral to the cranial aspect of the tibia, over cranial tibialis m	Perpendicular or oblique insertion: dry-needle depth 1.5 cun	Colic, paralysis of hind limb, ligament/tendon problems, shoulder pain	Commonly used point
<i>ST-40</i> <i>Feng-long</i> Bountiful Bulge)	0.5 cun lateral to ST-38 (8 cun proximal to the lateral malleolus) between the long and lateral digital extensor mm	Perpendicular or oblique insertion: dry-needle depth 1.5 cun	Luo-connecting point of ST Channel, influential point for phlegm. Dizziness, phlegm, edema, constipation, seizure, paralysis of hind limb	Commonly used point
<i>ST-41</i> <i>Jie-xi</i> (Ravine Divide)	At level of the bottom edge of lateral malleolus, between the long and lateral digital extensor tendon, proximal to intermediate retinaculum	Perpendicular insertion: dry-needle depth 0.5 cun	<i>Jing</i> -river point (fire-mother). Dizziness, mania, constipation, paralysis of hind limb	Commonly used point
<i>ST-45</i> <i>Hou-ti-tou</i> (Pelvic Hoof Toe)	Cranial midline of the hind hoof, proximal to coronary band	Perpendicular insertion: dry-needle depth 0.5 cun, hemocupuncture for excess conditions	<i>Jing</i> -well point (metal-son). Sore throat, epistaxis, dental pain, abdominal pain, fever, seizure, laminitis	Commonly used point

SPLEEN CHANNEL (SP)

Pelvic limb *Tai-yin*: from the hind foot to the chest.

<i>SP-1</i> <i>Yin-bai</i> (Hidden White)	Caudomedial aspect of the hind hoof, proximal to coronary band	Perpendicular insertion: dry-needle depth 0.5 cun, hemocupuncture for excess conditions	<i>Jing</i> -well point (wood). Laminitis, hematuria, hemochezia, abdominal pain or fullness	Commonly used point
<i>SP-3</i> <i>Tai-bai</i> (Supreme White)	Distal to distal end of the medial splint bone (second metatarsal)	Perpendicular insertion: dry-needle depth 0.5 cun	Shu-stream point (earth), <i>Yuan</i> -source point. Colic, diarrhea, constipation, obesity, joint pain, perianal conditions, laminitis	Commonly used point
<i>SP-6</i> <i>San-yin-jiao 3</i> (Yin Crossing)	Three cun proximal to medial malleolus, caudal to the tibial border, 0.5 cun posterior to saphenous vein	Perpendicular insertion: dry-needle depth 1.5 cun	Master point for the caudal abdomen and urogenital tract, tonifies Qi and blood. Diarrhea, genital discharge, promotes parturition, infertility, paralysis of hind limb, impotence, abnormal cycling, hernia, urinary incontinence, insomnia	Commonly used point
<i>SP-9</i> <i>Yin-ling-quan</i> (Yin Mound Spring)	In a depression at the level of the patellar ligaments, 0.5 cun in front of the saphenous vein	Perpendicular or oblique insertion: dry-needle depth 1 cun	He-sea point (water). Edema, diarrhea, jaundice, stranguria or incontinence, stifle pain and arthritis	Commonly used point

HEART CHANNEL (HT)

Thoracic limb *Shao-yin*: from the chest to front foot (crosses from medial to lateral at the level of the carpus).

<i>HT-3</i> <i>Shao-hai</i>	Between the olecranon crease and the medial epicondyle of the humerus	Perpendicular insertion: dry-needle	He-sea point (water); elbow pain, chest pain	Commonly used point
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(Minor Sea) HT-9 Shao-chong (Minor channel)	Caudolateral aspect of the front hoof, proximal to coronary band	depth 0.5 cun Perpendicular insertion: dry-needle depth 0.5 cun	Jing-well point (wood-mother point); chest pain, shoulder pain, front limb lameness, laminitis, coma	Commonly used point
SMALL INTESTINE CHANNEL (SI)				
Thoracic limb Tai-yang: from the front foot to the head.				
SI-1 Shao-ze (Lesser Marsh)	Cranial aspect of the front hoof, proximal to the coronary band	Perpendicular insertion: dry-needle depth 0.5 cun	Jing-well point (metal); laminitis, sore throat, mastitis, fever, coma, shoulder pain	Most commonly used point
SI-3 Qian-chan-wan (Thoracic Fetlock)	In a depression on the caudolateral border of the cannon bone (third metacarpal), distal to the end of the lateral splint bone (fourth metacarpal), proximal to the fetlock, over the lateral palmar digital vein	Perpendicular insertion: dry-needle depth 1 cun or hemo-acupuncture	Shu-stream point (wood-mother); contusion, sprain, swelling of the fetlock, tendinitis of flexor tendons; cervical stiffness, back pain, sore throat, shoulder lameness, laminitis, seizure, mania	Most commonly used point
SI-4 Wan-gu (Wrist Bone)	On the lateral surface of the forelimb, distal to the carpal joint, upper 1/3 of the distance from carpus to fetlock, cranial to the suspensory ligament; opposite to LI-4	Perpendicular insertion: dry-needle depth 0.5 cun	Yuan-source point; cervical stiffness, jaundice, fever, carpal pain, and arthritis	Commonly used point
SI-6 Yang-lao (Nursing the Aged)	In a depression cranial to the lateral styloid process of the radius, proximal to the accessory carpal bone, caudal to the lateral digital extensor m	Perpendicular insertion: dry-needle depth 0.5 cun	Xi-cleft point; poor eyesight, acute pain in the shoulder and forelimb	Commonly used point
SI-7 Zhi-zheng (Branch to the Correct)	5 cun proximal to SI-6 on a line joining SI-6 and SI-8 on the caudolateral aspect of the forelimb	Perpendicular insertion: dry-needle depth 0.5 cun	Luo-connecting point of the SI Channel; fever, cervical stiffness, elbow pain	Commonly used point
SI-8 Xiao-hai (Small Sea)	In a depression between the olecranon and the lateral epi-condyle of the humerus	Perpendicular insertion: dry-needle depth 0.5 cun	He-sea point (earth-son); elbow pain, seizure	Commonly used point
SI-9 Qiang-feng Robbing Wind	Large depression along the caudal border of the deltoid muscle at its juncture with the lateral and the long heads of the triceps brachii	Perpendicular insertion: dry-needle depth 1.5 cun	Shoulder pain, forelimb lameness, general pain relief	Most commonly used point
SI-16 Tian-chuang (Celestial Window)	Dorsal border of the brachiocephalicus muscle at the level of the second cervical vertebral space (C2-C3)	Perpendicular insertion: dry-needle depth 1.5 cun	Diagnostic point (along with TH-15) for ligament or tendon injuries, cervical stiffness	Most commonly used point
BLADDER CHANNEL (BL)				
Pelvic limb Tai-yang: from the head to hind foot.				
BL-11 Da-zhu (Big Shuttle)	Cranial to the withers (at the second thoracic vertebral space), 1.5 cun lateral to dorsal midline	Perpendicular insertion: dry-needle depth 1 cun	Influential point for bone (arthritis/ IVDD); cough, heaves, fever, cervical stiffness, forelimb lameness	Most commonly used point
BL-36 Xie-qi or Cheng-fu (Evil Qi)	In the groove between the biceps femoris and the semitendinosus mm, at the level of center of anus	Perpendicular insertion: dry-needle depth 2 cun	Lumbosacral pain, perianal problems	Commonly used point
BL-37 Han-gou or Yin-men (Sweat Groove)	In groove between the biceps femoris and the semitendinosus mm, at the level of the tuber ischii	Perpendicular insertion: dry-needle depth 2 cun	Lameness associated with the hip, stifle, and hock; muscular atrophy; pelvic limb paralysis	Commonly used point
BL-38 Yang-wa or Fu-xi (Face Up Tile)	In the muscular groove between the biceps femoris and semi-tendinosus mm, 2.33 cun distal to BL-37	Perpendicular insertion: dry-needle depth 2 cun	Lameness associated with the hip, stifle, and hock; muscular atrophy; pelvic limb paralysis	Commonly used point
BL-54 Ba-shan or Zhi-bian (Attach to Mountain)	Midway on a line connecting Bai-hui (the dorsal midline at the lumbosacral space) and the greater trochanter of the femur	Perpendicular insertion: dry-needle depth 2 cun	Hip pain and arthritis, hind limb lameness, muscle atrophy, bladder disorders, immune-mediated disorders	Commonly used point
BL-58 Fei-yang (Flying Yang)	One cun ventrolateral to BL-57, or 7 cun proximal to BL-60, on the caudal border of the fibula	Perpendicular insertion: dry-needle depth 0.5 cun	Luo-connecting point of the BL Channel; headache, epistaxis, back pain, hind limb pain	Commonly used point
BL-59 Fu-yang (Instep Yang)	Three cun directly proximal to BL-60	Perpendicular insertion: dry-needle depth 0.5 cun	Xi-cleft point for Yang-qiao extraordinary channel; acute (trauma) lumbosacral pain, hind limb lameness	Commonly used point
BL-67 Zhi-yin (Digit Well)	Caudolateral aspect of hind hoof, proximal to coronary band	Perpendicular insertion: dry-needle depth 0.5 cun	Jing-well point (metal), mother point; nasal congestion and discharge, epistaxis, eye problems, headache, promotion of parturition, laminitis	Commonly used point
KIDNEY CHANNEL (KID)				
Pelvic limb Shao-yin: from the hind foot to chest.				
KID-1 Hou-jiu (Pelvic Central Bulb Hoof)	In a depression between the bulbs of the heel	Perpendicular insertion: dry-needle depth 1 cun	Jing-well point (wood) point; laminitis, sore throat, constipation, coma, seizure, loss of voice, dysuria	Most commonly used point
KID-7 Fu-liu (Recover Flow)	2 cun directly proximal to KID-3, on the cranial border of the Achilles tendo	Perpendicular insertion: dry-needle depth 0.5 cun	Jing-river point (metal-mother). Non sweater, diarrhea, edema, abdominal fullness, paralysis of hind limb	Commonly used point
KID-9 Zhu-bin	5 cun proximal to KID-3, at the lower end of the belly of the gastrocnemius m, on a line	Perpendicular or oblique insertion:	Xi-cleft point for the Yin-wei extraordinary channel; hyperactivity, vomiting, hind limb	Commonly used point

(Guest House) drawn from KID-3 to KID-10 dry-needle depth 1.5 cun lameness

PERICARDIUM CHANNEL (PC)

Thoracic limb Jue-yin: from the chest to front foot.

<i>PC-6</i> <i>Nei-guan</i> (Inner Pass)	Directly cranial to the lower border of the chestnut, 3 cun proximal to PC-7, in the groove between the flexor carpi radialis and the flexor carpi ulnaris	Perpendicular insertion: dry-needle depth 1 cun	Luo-connecting point of the PC Channel, master point for the chest/cranial abdomen, confluent point with yin-wei channel. Anxiety, insomnia, vomiting, nausea, headache, chest pain, palpitation, paralysis of forelimbs, epilepsy	Most commonly used point
<i>PC-7</i> <i>Da-ling</i> (Great Mound)	At the level of the accessory carpal bone, cranial to the flexor carpi ulnaris	Perpendicular insertion: dry-needle depth 0.5 cun	Shu-stream point (earth), Yuan-source point; chest pain, vomiting, epilepsy	Commonly used point
<i>PC-9</i> <i>Qian-jiu</i> (Thoracic Entral Bulb)	In the central depression between the bulbs of the heel	Perpendicular insertion: dry-needle depth 1 cun	Jing-well point (wood); hyperactivity, shen disturbance, nonsweater, superficial tendon problem, laminitis, navicular disease	Most commonly used point

TRIPLE HEATER CHANNEL (TH)

Thoracic limb Shao-yang: from the front foot to head.

<i>TH-1</i> <i>Qian-ti-tou</i> (Thoracic Hoof Toe)	1 cun lateral to the cranial midline, proximal to the coronary band	Perpendicular insertion: dry-needle depth 0.5 cun	Jing-well point (metal); sore feet, laminitis, sore or cracked front heels, shoulder pain, colic, sore throat, deafness, red eyes	Most commonly used point
<i>TH-3</i> <i>Zhong-zhu</i> (Central Islet)	1 cun lateral to the cranial midline of the fetlock, at the junction of the lower and middle third of the cannon bone	Perpendicular insertion: dry-needle depth 1 cun	Shu-stream point (wood); head shaking, ear problems, febrile disease, pastern/fetlock pain	Commonly used point
<i>TH-4</i> <i>Yang-chi</i> Divergent Yang	1 cun lateral to the common digital extensor tendon, in depression between lateral styloid process of radius and intermedial carpal bone	Perpendicular insertion: dry-needle depth 1 cun	Yuan-source point; carpal pain, sore throat, diabetes, malaria	Commonly used point
<i>TH-5</i> <i>Wai-guan</i> (Outer Pass)	Three cun proximal to the antebrachio-carpal articulation, caudal to radius	Perpendicular insertion: dry-needle depth 1.5 cun	Luo-connecting point of the TH Channel, confluent point with Yang-wei channel; paralysis of forelimbs, headache, febrile diseases, red eyes, ear problems, neck pain, navicular disease	Most commonly used point
<i>TH-7</i> <i>Hui-zong</i> (Convergence and Gathering)	One cun caudal to TH-6	Perpendicular insertion: dry-needle depth 1 cun	Xi-cleft point; acute epilepsy, deafness, paralysis	Commonly used point
<i>TH-9</i> <i>Si-du</i> (Four Rivers)	Four cun proximal to TH-8, at the end of the groove of the common digital extensor and lateral ulnar mm	Oblique insertion toward PC-6: dry-needle depth 3 cun	General analgesia point, paralysis, dental problems	Commonly used point
<i>TH-10</i> <i>Tian-jing</i> (Celestial Well)	One cun dorsocranial to SI-8	Perpendicular insertion: dry-needle depth 1 cun	He-sea point (earth); paralysis of forelimbs, sore throat, deafness, toothache	Commonly used point
<i>TH-14</i> <i>Jian-wai-yu</i> (External Shoulder Clavicle)	Caudal margin of shoulder joint, at the level of the point of the shoulder	Perpendicular insertion: dry-needle depth 1 cun	Shoulder and front limb pain	Most commonly used point
<i>TH-15</i> <i>Bo-jian</i> (Scapular Tip)	Depression on the dorsal border of the scapula at the junction of the scapula and scapular cartilage	Perpendicular insertion: dry-needle depth 1.5 cun	Shoulder and front limb pain, sore foot, cervical stiffness; with SI-16, diagnostic point for ligament and tendon conditions	Most commonly used point

GALLBLADDER CHANNEL (GB)

Pelvic limb Shao-yang: from the head to hind foot.

<i>GB-21</i> <i>Bo-zhong</i> (Middle Scapula)	In a depression located halfway along the cranial edge of the scapula	Perpendicular or oblique insertion toward the medial aspect of capula: dry-needle depth 1.5 cun	Shoulder pain, paralysis of forelimbs, mastitis, dystocia	Most commonly used point
<i>GB-29</i> <i>Ju-liao</i> (Squatting Hole)	In a depression midway between wing of ilium and greater trochanter of the femur	Perpendicular insertion: dry-needle depth 1.5 cun	Poor performance, gluteal muscle soreness, hind limb pain, arthritis of coxofemoral joint, hind limb paralysis	Commonly used point
<i>GB-30</i> <i>Huan-tiao</i> (Circular Jump)	In a depression, on the caudo-ventral margin of the greater trochanter	Perpendicular insertion: dry-needle depth 1.5 cun	Poor performance, gluteal muscle soreness, hind limb pain, arthritis of coxofemoral joint, hind limb paralysis	Commonly used point
<i>GB-32</i> <i>Zhong-du</i> (Central River)	2 cun proximal to GB-33	Perpendicular insertion: dry-needle depth 1.5 cun	Pruritus, paralysis of hind limb, sore feet	Commonly used point
<i>GB-34</i> <i>Yang-ling-quan</i> (Yang Tomb Spring)	Craniodistal to the head of fibula, in the interosseous space between the tibia and fibula, between the long and lateral digital extensors	Oblique insertion: dry-needle depth 1.5 cun	He-sea point (earth); influential point for tendon and ligaments; weak tendon/ ligament, hind end weakness	Most commonly used point
<i>GB-37</i> <i>Guang-ming</i> (Bright Light)	One cun proximal to GB-38 between the lateral digital extensor m and the deep digital flexor m	Perpendicular insertion: dry-needle depth 1 cun	Luo-connecting point of the LIV Channel. Acute or chronic eye problems, pain in mammary gland, paralysis of hind limb	Commonly used point
<i>GB-38</i> <i>Yang-fu</i> (Yang Assistance)	One cun proximal to GB-39 between the lateral digital extensor m and the deep digital flexor m.	Perpendicular insertion: dry-needle depth 1 cun	Jing-river point (fire); headache, eye problems, sore throat, Paralysis	Commonly used point

GB-39 <i>Xuan-zhong</i> (Hanging Bell)	Three cun proximal to the tip of the lateral malleolus in a depression of the caudal aspect of the tibia, between the lateral digital extensor m and the deep digital flexor m	Perpendicular insertion: dry-needle depth 1 cun	Influential point for marrow; cervical stiffness, paresis or paralysis of the hind limb, anus problems, chest pain, sore throat	Commonly used point
GB-40 <i>Qiu-xu</i> (Hill Ruins)	Cranial to BL-62; craniodistal to the tip of the lateral malleolus of the tibia, over the tendon of lateral digital extensor m.	Perpendicular insertion: dry-needle depth 0.5 cun	Yuan-source point; hock pain, chest pain, malaria	Commonly used point
GB-43 <i>Xia-xi</i> (Pinched Ravine)	On the lateral aspect of the hind limb distal to the fetlock joint, midway between ST-44 and BL-66	Perpendicular insertion: dry-needle depth 0.5 cun	Ying-spring point (water); laminitis, pastern pain, tendonitis, hypertension, mastitis, eye problems	Commonly used point
GB-44 <i>Zu-qiao-yin</i> (Food Orifice Yin)	Craniolateral aspect of the coronary band of the hind limb	Perpendicular insertion: dry-needle depth 0.5 cun	Jing-well point (metal); hock pain, hip problems, coxa problems, abnormal cycling, laminitis, insomnia	Most commonly used point

LIVER CHANNEL (LIV)

Pelvic limb Jue-yin: from the hind foot to chest.

LIV-1 <i>Da-dun</i> (Large Pile)	Cranio-medial aspect of the coronary band of the hind limb	Perpendicular insertion: dry-needle depth 0.5 cun	Jing-well point (wood); laminitis, side-bones, hernia	Most commonly used point
LIV-2 <i>Xing-jian</i> Moving Between	On the medial aspect of the hind limb, distal to the fetlock joint, cranial to and the extensor branch of suspensory ligament (interosseous m)	Perpendicular insertion: dry-needle depth 0.5 cun	Ying-spring point (fire); liver Yang rising, eye problems, ring-bone, side-bone, laminitis, abnormal cycling, headache	Commonly used point
LIV-3 <i>Tai-chong</i> (Supreme Surge)	On the craniomedial aspect of the cannon bone (third meta-tarsal), upper 1/3 of the distance from the tarsus to fetlock	Perpendicular insertion: dry-needle depth 0.5 cun	Shu-stream point (earth), Yuan-source point; liver Qi staga-tion, abnormal cycle, fetlock pain, paralysis of hind limb	Commonly used point
LIV-4 <i>Zhong-feng</i> or <i>Qu-chi</i> (Pond on the Curve)	Cranial aspect of the hock, on the saphenous vein, medial to the cunean tendon	Perpendicular insertion: dry-needle depth 0.5 cun, or hemo-acupuncture	Jing-river point (metal); anhidrosis, hock pain, swelling and pain of hind limb	Commonly used point
LIV-5 <i>Li-gou</i> (Woodworm Chanel)	In a depression 2 cun proximal to SP-6, on the cranial border of the tibia, 5 cun proximal to the level of the medial malleolus	Perpendicular insertion: dry-needle depth 0.5 cun	Luo-connecting point of the LIV Channel; urinary incont-nence, hind limb paralysis	Commonly used point
LIV-8 <i>Qu-quan</i> (Crooked Spring)	In a depression 2 cun cranio-medial and proximal to KID-10	Perpendicular insertion: dry-needle depth 1 cun	He-sea point (water); male infertility, genital pruritus, urinary incontinence, abnormal cycling, stifle pain	Commonly used point

GOVERNING VESSEL CHANNEL (GV)

The GV Channel originates from the uterus. It travels within the lower abdomen to emerge at the perineum.

GV-2 <i>Wei-gen</i> or <i>Yao-shu</i> GV-3	On the midline, in a depression at the first coccygeal vertebral space (C1-C2)	Perpendicular insertion: dry-needle depth 1 cun	Back pain, hind limb paralysis, seizure, perianal problems	Commonly used point
<i>Yao-yang-guan</i> (Lumbar Yang Pass)	On the midline in a depression between L4 and L5 vertebrae	Perpendicular insertion: dry-needle depth 1 cun	Coldness and pain in the back, impotence, hind limb paralysis, kidney Yang/Qi	Most commonly used point

LUNG CHANNEL (LU)

Thoracic Tai-yin: chest to front foot.

LU-9 <i>Tai-yuan</i>	On the medial aspect of the radiocarpal joint just cranial to the radial artery, at the level of HT-7	Perpendicular or oblique insertion: dry-needle depth 0.5 cun	Shu-stream point (earth)—mother (tonification) point for deficiency disease patterns, Yuan-source point, influential point for pulse and vessels. Lung deficiency, chronic cough, dyspnaea, weak bark, carpal joint pain	Commonly used point
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LARGE INTESTINE CHANNEL (LI)

Thoracic Limb Yang-ming: Front foot to head.

LI-4 <i>He-gu</i>	On the medial side of the thoracic limb between the second and third metacarpal bones at the midpoint of the third metacarpal bone	Perpendicular insertion: dry-needle depth 0.5 cun.	Master point for the face and mouth; Yuan-source point. Nasal discharge and congestion, epistaxis, facial paralysis, dental problems, pharyngitis, tendonitis, fever, immunodeficiency, lupus, immune-mediated skin diseases, pain syndromes	Very commonly used point
LI-10 <i>Qian-san-li</i>	On the craniolateral aspect of the thoracic limb, 2 cun distal to LI-11 (1/6 of the distance between the elbow and carpus) in the groove between the extensor carpi radialis and the common digital extensor muscles	Perpendicular insertion: dry-needle depth 1–1.5 cun	Thoracic limb “Three Mile point” (analogous to ST-36 in the pelvic limb). Qi deficiency, immunodeficiency, wind-heat, pruritus, immune regulation, diarrhea, abdominal pain, thoracic limb lameness and paresis or paralysis, elbow pain, dental pain, gingivitis, stomatitis, pelvic limb and generalized weakness	Very commonly used point
LI-11 <i>Qu-chi</i>	On the lateral side of the thoracic limb at the lateral end of the cubital crease, halfway between the lateral epicondyle of the humerus and the biceps tendon with the elbow flexed	Perpendicular or oblique insertion: dry-needle depth 1.5 cun, aquapuncture depth 1 cun	He-sea point (earth) mother (tonification) point for deficiency disease patterns. Wind-heat, immune mediated diseases, pharyngitis, dental pain, uveitis, fever, hypertension, epilepsy, abdominal pain, vomiting, diarrhea, constipation, elbow pain, thoracic limb paresis or paralysis, pruritus	Very commonly used point
LI-15 <i>Jian-jing</i> (Shoulder Well)	At the shoulder region, cranial and distal to the acromion on the cranial margin of the acromial head of the deltoid muscle	Perpendicular or oblique insertion: dry-needle depth 1–1.5 Cun	Shoulder pain and lameness, cervical pain, intervertebral disk disease	Commonly used point

STOMACH CHANNEL (ST)

Pelvic Limb Yang-ming: Head to pelvic limb foot.

ST-35 (ST-35a) Du-bi	In the depression distal to the patella and lateral to the patellar ligament; also referred to as the lateral eye of the knee or <i>Wai Xi Yan</i> ; ST-35a and ST-35b are referred together as <i>Xi Yan</i> .	Perpendicular insertion: dry-needle depth 0.5 cun	Stifle pain and osteoarthritis, ligament disorders and pelvic limb weakness	Very commonly used point
ST-35b Xi-ao	In the depression distal to the patella and medial to the patellar ligament; also referred to as the medial eye of knee or <i>Nei Xi Yan</i> . ST-35a and ST-35b are referred together as <i>Xi Yan</i> .	Perpendicular insertion: dry-needle depth 0.5 cun	Stifle pain and osteoarthritis, ligament disorders and pelvic limb weakness	Commonly used point
ST-40 Feng-long	On the lateral side of the pelvic limb, halfway between the lateral malleolus of the fibula and the top of the tibia, 2 cun lateral to the anterior tibial midline, in the groove between the cranial tibial and the long digital extensor muscles	Perpendicular or oblique insertion: dry-needle depth 0.5 cun	<i>Luo</i> -connecting point of the ST Channel, influential point for phlegm. Obesity, lipoma, pruritus, skin damp heat, dizziness, phlegm, edema, constipation, epilepsy, pelvic limb paresis or paralysis	Commonly used point
ST-41 Jie-xi	On the cranial aspect of the hock in the depression directly on the midline, the point lies at level of malleolus between tendons of long digital extensor and cranial tibialis muscles.	Perpendicular insertion: dry-needle depth 0.5 cun	<i>Jing</i> -river point (fire)-mother (tonification) point for deficiency disease patterns. <i>Wei</i> syndrome, spleen deficiency, dizziness, mania, facial pain and swelling, constipation, pelvic limb paresis or paralysis, hock pain	Commonly used point

SPLEEN CHANNEL (SP)

Pelvic Limb Tai-yin: hind foot to the chest.

SP-6 San-yin-jiao	On the medial side of the pelvic limb 3 cun proximal to the tip of the medial malleolus in a small depression on the caudal border of the tibia (opposite GB-39 on the lateral side)	Perpendicular insertion: dry-needle depth 1–1.5 cun	Master point for the caudal abdomen and urogenital tract (<i>3Yin</i> crossing); crossing (meeting) point of the SP, LIV, and KID Channels; contraindicated during pregnancy. Tonifies <i>Yin</i> and blood, diarrhea, genital discharge, promotes parturition, infertility, pelvic limb paresis or paralysis, impotence, irregular heat cycles, hernia, urinary incontinence, sleep disorders, <i>Yin</i> deficiency	Very commonly used point
SP-9 Yin-ling-quan	On the medial side of the pelvic limb, on the lower border of the medial condyle of the tibia, in the depression between the caudal border of the tibia and the gastrocnemius muscle	Perpendicular or oblique insertion: dry-needle depth 1 cun	<i>He</i> -sea point (water). <i>Yin</i> deficiency, damp conditions, edema, diarrhea, jaundice, dysuria or urinary incontinence, stifle pain and osteoarthritis	Commonly used point
SP-10 Xue-hai	When the stifle is flexed the point is 2 cun proximal and medial to the patella (diagonally) in a depression just cranial to the sartorius m.	Perpendicular or oblique insertion: dry-needle depth 1 cun	“Sea of Blood” Blood deficiency, blood heat, blood stagnation, heat toxin, fever, pruritus, irregular heat cycles, pelvic limb paresis or paralysis	Commonly used point
SP-21 Da-bao	On the lateral aspect of the thorax at the seventh intercostals space at the same level as the point of the shoulder	Perpendicular insertion: dry-needle depth 0.5 cun	Major <i>Luo</i> -point of the spleen. Generalized pain, thoracic pain, dyspnea, digestive disorders, thoracic and pelvic limb weakness, <i>Wei</i> syndrome	Commonly used point

HEART CHANNEL (HT)

Thoracic Limb Shao-yin: chest to front foot.

HT-1 Jia-qi or Ji-quan	In the center of the axillary space (between the trunk and the thoracic limb) over the superficial pectoral muscles	Oblique upward insertion: dry-needle depth 0.5 cun	<i>Shen</i> disturbances, <i>Yin</i> deficiency, polydipsia, thoracic pain, chronic shoulder lameness, scapular nerve paralysis	Commonly used point
HT-9 Shao-chong	On the medial aspect of the fifth digit of the thoracic limb at the nail bed	Perpendicular insertion: dry-needle depth 0.2 cun	<i>Jing</i> -well point (wood)—mother (tonification) point for deficiency disease patterns. Coma, febrile disease, <i>shen</i> disturbances, thoracic pain, shoulder pain, thoracic limb lameness, cardiac arrhythmias	Commonly used point

SMALL INTESTINE CHANNEL (SI)

Thoracic Limb Tai-Yang: front foot to the head

SI-3 Qian-chan-wan or Hou-xi	Proximal to the metacarpo phalangeal joint on the lateral side of the fifth metacarpal	Perpendicular insertion: dry-needle depth 0.5–1 cun or hemoacupuncture	<i>Shu</i> -stream point (wood)—mother (tonification) point for deficiency disease patterns; confluent point of Governing Vessel Channel. Cervical pain, intervertebral disk disease, thoracolumbar pain, shoulder pain, pharyngitis, epilepsy, mania	Commonly used point
SI-6 Yang-lao	On the lateral side of the thoracic limb distal to the tip of the ulna, on the cranial edge of the ulnaris lateralis muscle, cranial to HT-7 (HT-7 is on the lateral transverse crease of the carpal joint in the large depression lateral to the tendon of the flexor carpi ulnaris muscle.)	Oblique insertion: dry-needle depth 0.5 cun	<i>Xi</i> -cleft point. Visual dysfunction, acute pain in the shoulder and thoracic limb	Commonly used point
SI-7 Zhi-zheng	On the caudolateral aspect of the thoracic limb, 5 cun proximal to SI-5, on a line joining SI-5 and SI-8	Perpendicular insertion: dry-needle depth 0.5 cun	<i>Luo</i> -connecting point of the SI Channel. Fever, cervical pain, intervertebral disk disease, elbow pain, mental-emotional disorders	Commonly used point
SI-9 Qiang-feng	Caudal to the humerus in the large depression along the caudal border of deltoid muscle at its juncture with lateral and long heads of triceps brachii muscles, at level of the shoulder joint	Perpendicular insertion: dry-needle depth 1 cun	Shoulder pain, thoracic limb lameness or paresis or paralysis, generalized pain	Very commonly used point

BLADDER CHANNEL (BL)

Pelvic Limb Tai-yang: head to hind foot.

BL-10 Tian-zhu	On the dorsolateral aspect of the cervical spine, in a depression just caudal to the wings of the atlas (at the junction of C1-C2), 1.5 cun from the dorsal midline	Perpendicular insertion: dry-needle depth 0.5–1 cun	Wind-cold, nasal congestion and discharge, febrile disease, cervical pain, intervertebral disk disease, epilepsy, shoulder pain	Commonly used point
BL-11 Da-zhu	At the cranial edge of the scapula, 1.5 cun lateral to the dorsal spinous process of T1 (the	Perpendicular to oblique insertion:	Influential point for bone; crossing (meeting) point of the SI, BL, TH, GB, and GV Channels.	Very commonly used point

	first palpable dorsal spinous process); the point is punctured by inserting the needle midway between the spinous process and medial border of the scapula, directing needle slightly lateral.	dry-needle depth 0.5–1 Cun	Osteoarthritis, intervertebral disk disease, cervical pain, thoracolumbar pain, shoulder pain, thoracic limb lameness, cough, fever	used point
BL-24 <i>Qi-hai-shu</i>	On the dorsolateral aspect of the spine, 1.5 cun lateral to the caudal border of the dorsal spinous process of L4 (or L3)	Perpendicular insertion: dry-needle depth 1–1.5 cun	“Sea of Qi” Qi deficiency, thoracolumbar intervertebral disk disease, abdominal pain, uterine diseases, diarrhea, hemorrhage	Very commonly used point
BL-25 <i>Da-chang-shu</i>	On the dorsolateral aspect of the spine, 1.5 cun lateral to the caudal border of the dorsal spinous process of L5	Perpendicular insertion: dry-needle depth 1–1.5 cun	Back- <i>shu</i> association point for the large intestine. Diarrhoea, constipation, abdominal pain, thoracolumbar intervertebral disk disease, lumbar pain	Very commonly used point
BL-27 <i>Xiao-chang-shu</i>	On the dorsolateral aspect of the spine, 1.5 cun lateral to the caudal border of the dorsal spinous process of L7	Perpendicular insertion: dry-needle depth 1–1.5 cun	Back- <i>shu</i> association point for the small intestine. Abdominal pain, diarrhea, urinary incontinence, hematuria, lumbosacral pain	Commonly used point
BL-28 <i>Pang-guang-shu</i>	In the first sacral intervertebral space (S1-S2), 1.5 cun lateral to dorsal midline between sacrum and medial border of the wing of ilium	Perpendicular insertion: dry-needle depth 1–1.5 cun	Back- <i>shu</i> association point for the bladder. Dysuria, urinary incontinence, diarrhea, constipation, lumbosacral pain	Commonly used point
BL-35 <i>Hui-yang</i>	In the crease lateral to the tail base, just lateral to BL-30; BL-30 is in the sacrocaudal space (S3-Cd-1), 1.5 cun lateral to the dorsal midline.	Perpendicular insertion: dry-needle depth 1 cun	Bloody diarrhea, hematuria, perianal pruritus, sacrocaudal pain, tail paralysis	Commonly used point
BL-36 <i>Xie-qi or Cheng-fu</i>	Ventral to the lateral border of the tuber ischii in the groove between the biceps femoris and semi tendinosus muscles	Perpendicular insertion: dry-needle depth 1 cun	Lumbosacral pain, perianal disorders, pelvic limb paresis or paralysis	Commonly used point
BL-39 <i>Qian-shen or Wei-yang</i>	On the lateral end of the popliteal crease, on the medial border of the biceps femoris muscle tendon, just proximal to BL-40	Perpendicular insertion: dry-needle depth 1 cun	Lower He-sea point for TH Channel. Urinary incontinence, dysuria, edema, hock pain, thoracolumbar intervertebral disk disease	Very commonly used point
BL-40 <i>Wei-zhong</i>	In the center of the popliteal crease	Perpendicular insertion: dry-needle depth 1–1.5 cun	He-sea point (earth); master point for the caudal back and coxofemoral joints. Dysuria, urinary incontinence, coxofemoral joint and thoracolumbar intervertebral disk disease, autoimmune disease, vomiting, diarrhea, pelvic limb paresis or paralysis	Very commonly used point

KIDNEY CHANNEL (KID)

Pelvic Limb Shao-yin: hind foot to the chest

KID-7 <i>Fu-liu</i>	On the caudomedial aspect of the pelvic limb, 2 cun proximal to KID-3, on the cranial border of the Achilles tendon	Perpendicular insertion: dry-needle depth 0.5 cun	Jing-river point (metal)—mother (tonification) point for deficiency. Patterns. Diarrhoea, edema, pelvic limb paresis or paralysis	Very commonly used point
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TRIPLE HEATER CHANNEL (TH)

Thoracic Limb Shao-yang: front foot to the head.

TH-3 <i>Zhong-zhu</i>	Just proximal to the metacarpo-phalangeal joint on the lateral side of the fourth metacarpal bone on the dorsum of the foot of the thoracic limb	Perpendicular insertion: dry-needle depth 0.5 cun	Shu-stream point (wood)—mother (tonification) point for deficiency disease patterns. Otitis, auditory dysfunction, fever, metacarpophalangeal joint pain, thoracic limb paresis or paralysis	Commonly used point
TH-4 <i>Yang-chi</i>	On the lateral side of the thoracic limb, at the radiocarpal joint, just cranial to the common digital extensor tendon	Perpendicular insertion: dry-needle depth 0.5 cun	Yuan-source point. Carpal injury or pain, pharyngitis, diabetes mellitus	Commonly used point
TH-5 <i>Wai-guan</i>	On the lateral side of the thoracic limb, 3 cun proximal to the carpus in the interosseous space between the radius and ulna (opposite PC-6 on the medial side)	Perpendicular insertion: dry-needle depth 0.5–1 cun	Luo-connecting point of the TH Channel, confluent point of Yang-wei Channel. Wei Qi deficiency, thoracic limb lameness, paresis or paralysis, fever, conjunctivitis, otitis, cervical pain, intervertebral disk disease, carpal pain	Very commonly used point
TH-14 <i>Jian-liao</i>	At the shoulder, caudal and distal to the acromion on the caudal margin of the acromial head of the deltoid muscles	Perpendicular insertion: dry-needle depth 0.5–1 cun	Shoulder and thoracic limb pain and lameness	Very commonly used point

GALLBLADDER CHANNEL (GB)

Pelvic Limb Shao-yang: head to hind foot.

GB-21 <i>Bo-zhong</i>	In a groove in the muscle just cranial to the scapula, midway between GV-14 and the acromion (GV-14 is on the midline between C7-T1.)	Perpendicular or oblique insertion toward the medial aspect of the scapula: dry-needle depth 1–1.5 cun	Crossing point of the TH, GB, and Yang-wei Channels; shoulder pain, thoracic limb paresis or paralysis, mastitis, dystocia, liver and gallbladder disorders	Very commonly used point
GB-29 <i>Ju-liao</i>	At the coxofemoral joint, in a depression just cranial to the greater trochanter of the femur (one of the three “bowling ball” points around the hip)	Perpendicular insertion: dry-needle depth 1–1.5 cun	Crossing point of the GB and Yang-qiao Channels; osteoarthritis of the coxofemoral joint, pelvic limb paresis or paralysis, gluteal muscle pain	Very commonly used point
GB-30 <i>Huan-tiao</i>	In a depression midway between the greater trochanter of the femur and the tuber ischii	Perpendicular insertion: dry-needle depth 1–1.5 cun	Crossing point of the GB and BL Channels; osteoarthritis of the coxofemoral joint, pelvic limb paresis or paralysis, gluteal muscle pain	Very commonly used point
GB-31 <i>Feng-shi</i>	On the lateral aspect of the thigh, in a depression 7 cun proximal to the lateral epicondyle of the femur	Perpendicular insertion: dry-needle depth 1.5 cun	Pruritus, pelvic limb paresis or paralysis	Commonly used point
GB-33 <i>Xi-yang-guan</i>	On the lateral side of the pelvic limb at the stifle, in the large depression just proximal to the lateral epicondyle of the femur between the insertion of biceps femoris tendon and femur	Perpendicular insertion: dry-needle depth 0.5 cun	Stifle pain, osteoarthritis, and other stifle disorders	Commonly used point
GB-34 <i>Yang-ling-quan</i>	On the lateral side of the pelvic limb at the stifle, in a small depression cranial and distal to	Oblique insertion: dry-needle depth 0.5	He-sea point (earth), influential point for tendon and ligaments ST and LIV Qi stagnation, hypertension,	Very commonly

	the head of the fibula	cun	vomiting, liver and gallbladder disorders, tendon and ligament disorders, pelvic limb lameness, weakness, paresis or paralysis, general pain relief	used point
<i>GB-39</i> <i>Xuan-zhong</i>	On the lateral side of the pelvic limb distal to the stifle, 3 cun proximal to the tip of the lateral malleolus of the fibula in a depression on the caudal border of the fibula (near where the lateral saphenous vein crosses)	Perpendicular insertion: dry-needle depth 0.5–1 cun	Influential point for marrow. Neurological disorders, hemopoietic disorders, cervical pain, intervertebral disk disease, pelvic limb paresis or paralysis, thoracic pain, pharyngitis, perianal and anal disorders, cholecystitis	Commonly used point
<i>GB-41</i> <i>Zu-lin-qi</i>	On the lateral side of the pelvic limb distal to the hock, on the dorsum of the foot proximal to the metatarso-phalangeal joint, just distal to the junction of the fourth and fifth metatarsal bones	Perpendicular insertion: dry-needle depth 0.5 cun	<i>Shu</i> -stream point (wood), horary point, confluent point with the <i>Dai</i> Channel. Metatarsal pain and tendonitis, urinary incontinence, irregular heat cycles, ocular diseases, auditory dysfunction, mastitis, lateral costal pain, hip pain, lateral pelvic limb pain	Commonly used point
LIVER CHANNEL (LIV)				
Pelvic Limb Jue-Yin: hind foot to chest.				
<i>LIV-3</i> <i>Tai-chong</i>	On the medial side of the pelvic limb, proximal to the metatars-phalangeal joint between the second and third metatarsal bones	Perpendicular insertion: dry-needle depth 0.5 cun	<i>Shu</i> -stream point (earth), <i>Yuan</i> -source point Liver <i>Qi</i> stagnation, liver and gallbladder disorders, gastrointestinal disorders, urogenital disorders, abnormal heat cycles, pelvic limb paresis or paralysis, general painful conditions	Very commonly used point
<i>LIV-5</i> <i>Li-gou</i>	On the medial side of the pelvic limb above the hock, 5 cun proximal to the medial malleolus of the tibia on the caudal border of the tibia (2 cun proximal to SP-6)	Perpendicular insertion: dry-needle depth 0.5 cun	<i>Luo</i> -connecting point of the LIV Channel Liver and gallbladder disorders, urinary incontinence, stranguria, pain, itching or genitals swelling, abnormal heat cycles, pelvic limb paresis, paralysis	Commonly used point
GOVERNING VESSEL CHANNEL (GV)				
The Governing Vessel Channel (GV), also referred to as the <i>Du</i> Channel, originates from the uterus				
<i>GV-3</i> <i>Yao-yang-guan</i>	On the dorsal midline in the largest depression located between the dorsal spinous process of the L4-L5	Perpendicular insertion: dry-needle depth 0.3–0.5 cun	Kidney <i>Yang</i> and <i>Qi</i> deficiency, coldness and pain of the thoracolumbar and lumbosacral regions, lumbosacral intervertebral disk disease, impotence, pelvic limb paresis or paralysis	Very commonly used point

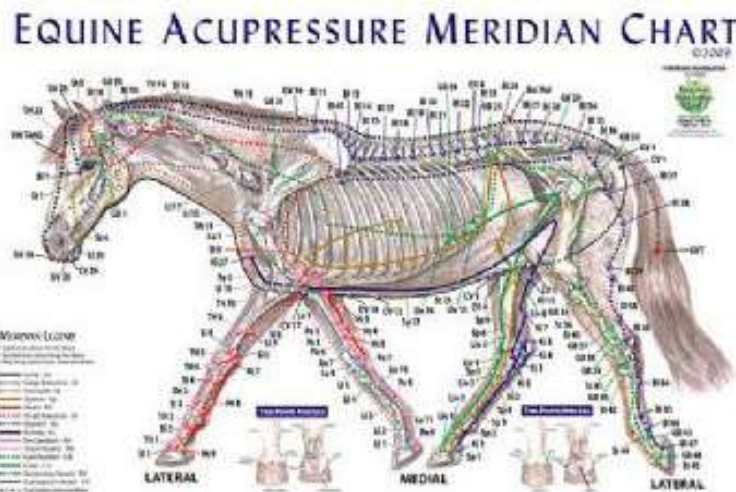


Fig. 1. Main acupuncture points in horse Source: https://www.animalacupressure.com/cdn/shop/products/chart_equine.jpg?v=1551407380 [24]. (Courtesy of Nancy Zidonis from Tallgrass Animal Acupressure Resources. Albuquerque, NM, USA)

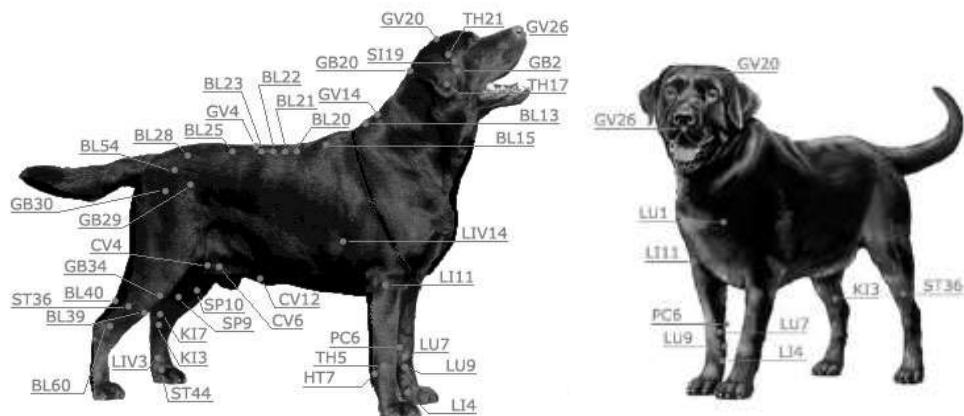


Fig. 2. Main acupuncture points in dog Source: <http://www.luckydoghealth.com/dogacupressurechart.htm> [25].

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