Natural Vet Care
www.naturalvet-care.com

CLINICAL APPLICATION OF ACUPUNCTURE IN THE PAIN CLINIC

Dr. Med. Vet Olga Martin Jurado, CVA(IVAS) D.Osteopathy & Shiatsu
Natural Vet Care. Pain clinic, Zurich (Switzerland)

-BEVAS-
BELGIAN VETERINARY ACUPUNCTURE SOCIETY

1

Objetives

1. Acupuncture related to the type of pain
2. Gait analysis
3. Clinical cases
4. Acupuncture related to manual therapy

2

1. Acupuncture related to the type of pain

- The classification of type of pain differs in TCM and in Western Medicine. Even though the terms are different both are related.

TCM

a) Heat Bi Syndrome
b) Cold Bi Syndrome
c) Damp Bi Syndrome
d) Wind Bi Syndrome
e) Bony Bi Syndrome

Western Medicine

a) Acute pain
b) Chronic pain
c) Osteoarthritic pain
d) Neuropathic pain
e) Oncological pain

3

1. Acupuncture related to the type of pain

- **TCM – Heat Bi Syndrome**

  Clinical signs
  - Acute onset
  - Painful, hot and swollen muscles or joint
  - Fever and/or excessive thirst
  - Tongue: red with yellow coating
  - Pulse: strong and fast

4

1. Acupuncture related to the type of pain

- **TCM – Heat Bi Syndrome –** Useful acupuncture points

Nerve	Innervation/Location	Indication
GV 14	C7-T1 dorsal root	Cervical, thoracic, forelegs & back problems
LI 11	Braquialis n.	Disperse heat/inflammation. Painful shoulder/elbow. Support sinews & joints
LI 4	Radial n. Palmar n. (n. Median)	Channel obstructions/pain. Anti spasmolytic, Pain face/mouth. Carpal problems
ST 44	Plantar n.	Knee problems, tendinitis, abdominal pain. Meridian obstructions (face)
GBI 20	C2	Cervical problems, Wobbler, Inflammation ears/nose

5

1. Acupuncture related to the type of pain

- **TCM – Heat Bi Syndrome –** Useful acupuncture points

Nerve	Innervation/Location	Indication
SP 6	Tibial n. Saphenous n.	Improves Yin, abdominal pain (gastrointestinal/genitourinary)
SP 9	Saphenous n.	Hip & knee pain
Er-Jian	Tip ear	Spasmolytic/colic pain. Headache
Wei-Jian	Tip tail	Spasmolytic/colic pain

6

1. Acupuncture related to the type of pain

- **TCM – Cold Bi Syndrome**

  Clinical signs
  - Acute and severe pain
  - Acute difficult movement of the joints
  - Relief of pain when exposed to heat
  - Exacerbation of pain when exposed to cold
  - Tongue: purple. Coating: slight and pale
  - Pulse: slow and wiry

7

7

1. Acupuncture related to the type of pain

- **TCM – Cold Bi Syndrome –** Useful acupuncture points

Nerve	Innervation/Location	Indication
GV 3	L4	Problems at the hind limbs, improves lumbosacral area & knees
GV 4	L2 At the height of Kidney Shu	Problems at the hind limbs, improves lumbosacral area & knees Genitourinary and intestinal problems
Bai Hui	Last lumbar n.	Hip displasia, lameness hind limb
Liv 3	Deep peroneal	Hind limb paralisis, spasmolytic GI
GB 20	C2	Cervical problems, Wobbler, Inflammation ears/nose

8

8

1. Acupuncture related to the type of pain

- **TCM – Cold Bi Syndrome –** Useful acupuncture points

Nerve	Innervation/Location	Indication
Shen-Shu	Extra point dorsal hip	Pelvic pain/displacement
Shen-Peng	Extra point dorsal hip	Pelvic pain/displacement
Shen-Jiao	Extra point dorsal hip	Pelvic pain/displacement
Moxibustion		

9

9

1. Acupuncture related to the type of pain

- **TCM – Damp Bi Syndrome**

  Clinical signs
  - Chronic stiffness
  - Difficult movement of joints
  - Greater stiffness than pain
  - Pain relieved when exposed to hot and dry conditions
  - exacerbated when exposed to Cold Damp
  - Tongue: pale. Coating: greasy
  - Pulse: slow and soft

10

10

1. Acupuncture related to the type of pain

- **TCM – Damp Bi Syndrome –** Useful acupuncture points

Nerve	Innervation/Location	Indication
SP 6	Tibial n. Saphenous n.	Improves Yin, abdominal pain (gastrointestinal/genitourinary)
SP 9	Saphenous n.	Hip & knee pain
ST 36	Superficial & deep peroneal	Knee problems, weakness hind limbs, lumbar pain, stomatch pain, general weakness
BL 20	Thoracic n.	Medial knee pain. Back pain

11

11

1. Acupuncture related to the type of pain

- **TCM – Damp Bi Syndrome –** Useful acupuncture points

Nerve	Innervation/Location	Indication
Bl 21	Thoracic n.	Gastrointestinal pain, lateral knee pain & hind limb
Gbl 20	C2	Cervical problems, Wobbler, Inflammation ears/nose
GV 4	L2 At the height of Kidney Shu	Problems at the hind limbs, improves lumbosacral area & knees Genitourinary and intestinal problems
Liv 3	Deep peroneal	Hind limb paralisis, spasmolytic GI

12

12

1. Acupuncture related to the type of pain

- **TCM – Wind Bi Syndrome**

  Clinical signs
  - Rapid onset of pain
  - Pain that move from one area to another
  - Pain radiating to a remote area
  - Pain in the channels and joints
  - Pain worse when exposed to Wind
  - Tongue: pale. Coating: thin
  - Pulse: superficial

13

13

1. Acupuncture related to the type of pain

- **TCM – Wind Bi Syndrome –** Useful acupuncture points

Nerve	Innervation/Location	Indication
Bl 12	Thoracic n.	Cervical & thoracic vertebral pain
Gbl 20	Auricular caudal	Cervical pain, otitis, conjuntivitis, uveitis, rinitis, neurological problems
BL 17	Thoracic n.	Stomatch, lung & heart problems
BL 18	Thoracic n.	Abdominal pain, thoracic vertebral pain, tendinitis, myositis, conjuntivitis, uveitis

14

14

1. Acupuncture related to the type of pain

- **TCM – Wind Bi Syndrome –** Useful acupuncture points

Nerve	Innervation/Location	Indication
Bl 23	Lumbar	Bone problems, chronic ear problems, kidney pain, lumbosacral pain, paralysis hind limb
SP 10	Femoral & saphenus	Sacral pain
Liv 3	Deep peroneal	Hind limb paralisis, spasmolytic GI

15

15

1. Acupuncture related to the type of pain

- **TCM – Bony Bi Syndrome**

  Clinical signs

  - Arthritis, chronic intervertebral disc disease, spondylosis or degenerative joint disease
  - Pelvis limb weakness
  - Difficulty getting up or walking
  - Tongue: pale, swollen and wet
  - Pulse: deep and weak, especially on the right side

16

16

1. Acupuncture related to the type of pain

- **TCM – Bony Bi Syndrome –** Useful acupuncture points

Nerve	Innervation/Location	Indication
Ki 3	Tibial	Tarsal pain, cistitis, lumbar pain, hind limb paralysis
Ki 10	Tibial	Knee pain, Pain in urinary tract
BL 23	Lumbar	Bone problems, chronic ear problems, kidney pain, lumbosacral pain, paralysis hind limb
BL 26	Lumbar	Rectal prolaps, bladder/kidney problems
BL 40	Femoralis & tibial	Acute lumbar pain, isciatic/hip pain, hind limb pain, knee pain
BL 60	Plantar cutaneus & tibial	Chronic lumbar pain, paralysis lumbar & hind limb Cervical pain, headache

17

17

1. Acupuncture related to the type of pain

- **TCM – Bony Bi Syndrome –** Useful acupuncture points

Nerve	Innervation/Location	Indication
Liv 3	Deep peroneal	Hind limb paralisis, spasmolytic GI
GV 3	L4	Problems at the hind limbs, improves lumbosacral area & knees
GV 4	L2 At the height of Kidney Shu	Problems at the hind limbs, improves lumbosacral area & knees Genitourinary and intestinal problems
St 36	Superficial & deep peroneal	Knee problems, weakness hind limbs, lumbar pain, stomatch pain, general weakness

18

18

1. Acupuncture related to the type of pain

- **TCM – Bony Bi Syndrome –** Useful acupuncture points

Nerve	Innervation/Location	Indication
LI 4	Radial n. Palmar n. (n. Median)	Channel obstructions/pain. Anti spasmolytic, Pain face/mouth. Carpal problems
LI 10	Between ext. Carporadial & ext. Dig. com	Radial paralysis/pain, ellbow pain, back pain, gastrointestinal problems
Shen-Shu	Extra point dorsal hip	Pelvic pain/displacement
Shen-Peng	Extra point dorsal hip	Pelvic pain/displacement
Shen-Jiao	Extra point dorsal hip	Pelvic pain/displacement

19

19

1. Acupuncture related to the type of pain

- **Western Medicine – Acute pain**
  - Characteristics
    - Pain that follows some bodily injury
    - It disappears with healing, and tends to be self-limiting (limiting)
    - It is beneficial to the body and a defence mechanism
  - Bi syndrome related: heat Bi and sometimes cold and wind Bi

20

20

1. Acupuncture related to the type of pain

- **Western Medicine – Acute pain**
  - Treatment
    - Combination of local and distal points Distal points. Sometimes is not possible to place needles locally
    - Examples
      - Gastrointestinal pain: PC 6 on the arm + ST-36 on the leg
      - Sore throat or toothache: LI 4 on the hand + ST 44 on the foot
    - Mirror imagen: left pain, use points right. Hip pain, use points in shoulder
    - Electroacupuncture
    - Frequency of treatment: Once a day, until pain relief. 1-2 treatments are enough

21

21

1. Acupuncture related to the type of pain

- **Western Medicine – Chronic pain**
  - Characteristics
    - Pain that lasts several weeks to months and persists beyond the expected healing time when non-malignant in origin
    - t is a pathological pain, it is not a defence mechanism
  - Bi syndrome related: damp, cold and bony Bi

22

22

1. Acupuncture related to the type of pain

- **Western Medicine – Chronic pain**
  - Treatment
    - Local and distal point: puncture 2 to 3 needles at each local point
    - Combination of points above and below the chosen ones
    - Mirror image
    - Electroacupuncture
    - Manual therapy
    - Moxibustion
    - Frequency of treatment: 1-2 weekly according to the pain intensity. Long term, according to the patient

23

1. Acupuncture related to the type of pain

- **Western Medicine – Osteoarthritic pain**
  - Characteristics
    - It is the most frequent cause of pain in the canine and feline population (20% dogs > 1year old)
    - The suggested therapy is a combination of nonsteroidal anti-inflammatory drugs and adjuvant analgesics, nutraceuticals, functional foods, physical therapies and complementary medicine
  - Bi syndrome related: Bony, damp and cold Bi

24

24

1. Acupuncture related to the type of pain

- **Western Medicine – Osteoarthritic pain**
  - Treatment
    - Local and distal point: puncture 2 to 3 needles at each local point
    - Combination of points above and below the chosen ones
    - Electroacupuncture
    - Laser acupuncture
    - Trigger points treatment & Manual therapy
    - Moxibustion
    - Pharmacopuncture: B12, homeopathy, stem cell.
    - Frequency of treatment: 1-2 weekly according to the pain intensity. Long term according to the patient

25

1. Acupuncture related to the type of pain

- **Western Medicine – Neuropathic pain**
  - Characteristics
    - Pain that originates from an injury or related to peripheral or central nervous system
    - It is described as burning or shooting, possibly associated with motor, sensory, or autonomic deficits
  - Bi syndrome related: Wind and heat Bi

26

26

1. Acupuncture related to the type of pain

- **Western Medicine – Osteoarthritic pain**
  - Treatment
    - Distal points. Local points are usually not recommended
    - Some suggested points to treat this type of pain: SJ 5, GIB 34, ST 36, ba xie and ba feng points
    - Mirror image
    - Electroacupuncture
    - Laser acupuncture
    - Trigger points and Manual therapy
    - Frequency of treatment: 1-2 weekly according to the pain intensity. Long term according to the patient

27

27

1. Acupuncture related to the type of pain

- **Western Medicine – Oncologic pain**
  - Characteristics
    - Pain can be acute, chronic or intermittent
    - Different aetiologies
      - Directly produced to the tumor growing
      - Originated by the treatment
      - Related to chronic debility
      - Unrelated to the tumor. Originated by a concurrent disease
  - Bi syndrome related: wind, heat, cold and damp Bi

28

1. Acupuncture related to the type of pain

- **Western Medicine – Osteoarthritic pain**
  - Treatment
    - Distal points. Local points are usually not recommended
    - Back- Shu and Mo of the affected organ
    - Electroacupuncture
    - Frequency of treatment: 1-2 weekly according to the pain intensity. Long term according to the patient

29

2. GAIT ANALYSIS – SESSION DESCRIPTION

1. Anamnesis: Breed, surgeries, passed and actual diseases, medication, walks, games and activities
2. Position and gait analysis
   - Standing position
   - Sitting (lying, getting up) position
   - Walking and trot: position, anatomy and limping
   - Turning to the right & left
3. Palpation of the whole body, location of painful areas and its relation to meridians and acupuncture points

30

2. GAIT ANALYSIS – Anamnesis - activities

31

2. GAIT ANALYSIS – Anamnesis position

Both fore- & himblimb aligned at the height of the shoulders and hip, respectively

32

2. GAIT ANALYSIS

Observation	Possible problem
Can move the head to the right & to the left?	Atlas/Axis rotation. Overwhelm neck muscles. Sacrum rotates compensating
Are the scapulas at the same height?	Overwhelm structures: Rhomboid m. , Trapezium m., fascia and paravertebral m. Trigger points at supra- &/or infraspinatus
What do the elbows do? Are they lateral or medial when bearing weight?	Elbow laterally: To increase stability and breathing capacity. Overwhelm cranial body Elbow medially: Overwhelm biceps braquial, triceps m. & fascia
What do the carpal joints do? Are they lateral or medial when bearing weight?	Congenital Adaptative: Overwhelm cranial body, wrong alignment of carpal bones Stumble: accessory bone

33

2. GAIT ANALYSIS

Observation	Possibl
Can move the head to the right & to the left?	Atlas/A compen
Are the scapulas at the same height?	Overwh paraver
What do the elbows do? Are they lateral or medial when bearing weight?	Elbow Overwh Elbow r
What do the carpal joints do? Are they lateral or medial when bearing weight?	Congen Adaptat bones Stumbl

um rotates

, fascia and atus

g capacity.

& fascia

nt of carpal

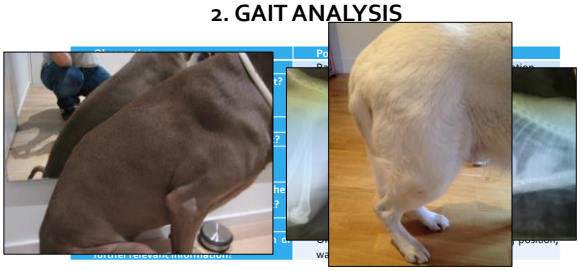
34

2. GAIT ANALYSIS

Observation	Possible problem
Is the spine aligned?	Paravertebral m. contratures. Vertebral rotation
Are the Ilium wings at the same height?	Dorsal or ventral displacement secondary to contractures at the sartorius m., biceps femoralis m. & latissimus dorsi)
Can move the tail in all directions?	Sacral Nutation/contranutation. Sacroiliac joint
Is the back part/hip at a normal height?	Holding muscles weakness
What do the knees do while moving?	Knees laterally: hind limb weakness Unstability: Ligaments
What do the tarsal joints do? Are they lateral or medial when bearing weight?	Congenital Adaptative:Sinews and overweight
Is it leaking any part?	Painful
Is there any anatomical deformation or further relevant information?	Old fracture, scar, wound, feces, urinating position, walking habits,...

35

2. GAIT ANALYSIS



36

2. GAIT ANALYSIS

Observation	Possible problem
How is the sitting position?	Hip, sakrum
Does it always lie down directly?	Hip, hindlimb muscular weakness
Does it always lie down on the same side?	Unilateral
How does it stand up? Does it need several attempts or support from the forelegs?	hindlimb muscular weakness Even back problems

37

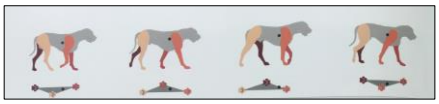
2. GAIT ANALYSIS

38

2. GAIT ANALYSIS

The locomotion is going to be altered according to the problem and it is going to be different walking, trotting or galloping

- **Walking**: The weight is always shared on 3 legs. The corporal mass center is in the triangle formed. A shorter step is caused because on the involved legs is damaged



39

2. GAIT ANALYSIS

The locomotion is going to be altered according to the problem and it is going to be different walking, trotting or galloping

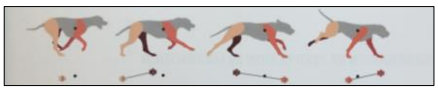
- **Trotting**: The weight is always shared on 2 diagonal legs. The corporal mass center is in the diagonal formed. When more than 2 legs are affected the dog prefers trotting

40

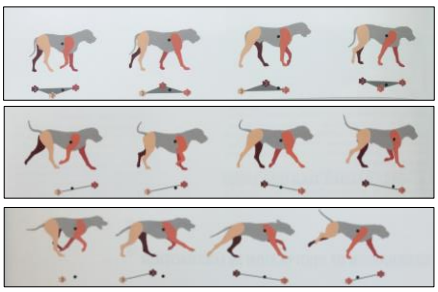
2. GAIT ANALYSIS

The locomotion is going to be altered according to the problem and it is going to be different walking, trotting or galloping

- **Diagonal galloping**: The weight is shared on 2 legs. The corporal mass center is in the diagonal formed. The forces formed are stronger. When the problem is the propulsion muscles the dog will barely go galloping



41



42

2. GAIT ANALYSIS

- Internal rotation both sides

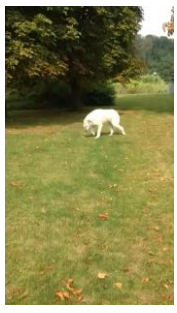
The limb inside the circle is overwhelmed. The smaller the circle the higher the intensity

43

3. CLINICAL CASES

- Guide to run a complete observation
  - Front, side, back view
  - Walking, trotting, galloping
  - Focus on an area:
    - Head/neck
    - Foreleg right/left (proximal to distal)
    - Back/spine/sacrum/tail
    - Hindlimb right/left (proximal to distal)

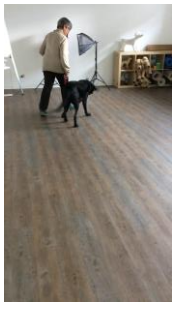
44



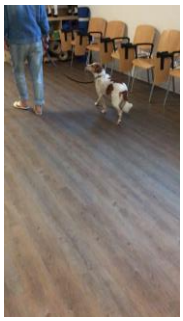
45

46

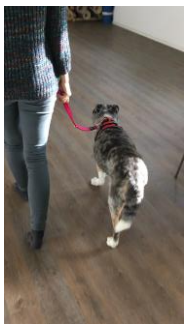
47



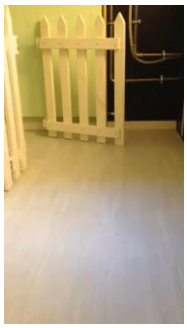
48



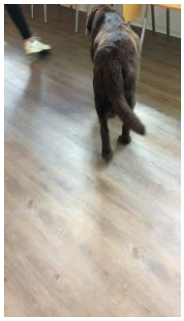
49

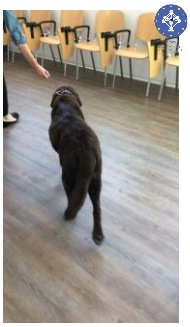


50

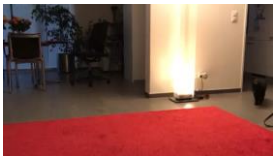
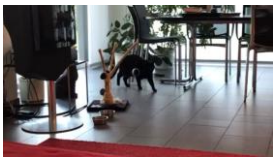


51





52

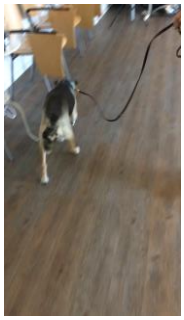



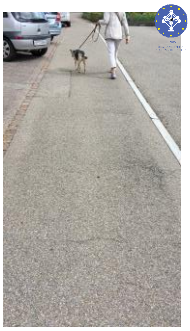
53

54

55

56





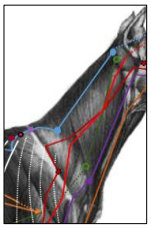
57

4. Acupuncture related to manual therapy

1. Palpation of the whole body
2. Location of painful or abnormal areas
3. Relation to the meridians and acupuncture points

Neck & C1-C2

- Muscle tone
- Vertebral mobility
- Palpation of the neck meridians

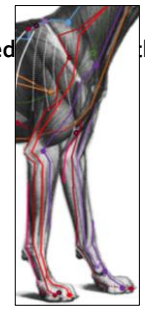


58

4. Acupuncture related [illegible] therapy

Foreleg

- Muscle tone and amount
- Mobility of the scapula
- Mobility of the shoulder, ellbow and carpal joint. Touching at the same time the most relevant acupuncture points
- Fascial limitations
- Ting points reaction

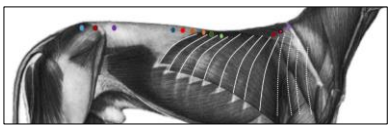


59

4. Acupuncture related to manual therapy

Core body & Spine

- Muscle tone inter- & paravertebral m.
- Mobility of vertebral articular facetes
- "vertebral rotations"
- Fascias
- Reaction to dorsal SHU points

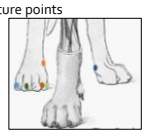


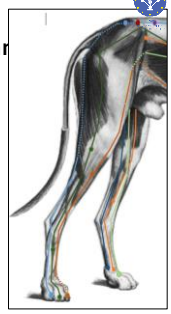
60

4. Acupuncture related to mar

Hind limb

- Muscle tone and amount
- Mobility of the hip, knee & tarsus. Palpate the most relevant acupuncture points
- Fascial limitations
- Reaction of Ting points



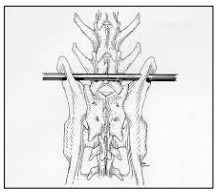


61

4. Acupuncture related to manual therapy

Sacroiliac joint

- Sacrum mobility



62

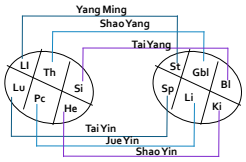
4. Acupuncture related to manual therapy

Element	Most common problems
Wood (German shepherd)	Neck muscle contractions. Steps without strength and rigid. Hindlimb ataxia. Standing up problems
Fire (Irish setter)	Low head position. Neck, back and pectoral muscle contractions. Tripping /trip on
Earth (Labrador)	Loss muscular mass, loss of sinews strenght, loss of strength to perform the steps Knee problems, hind limb lameness
Metall (Border Collie)	Respiratory problems. Hind limb weakness Scapla, shoulder, carpal joint problems
Water (dachshund)	Spine, hip and tarsal problems. Degenerative disease. Paravertebral m. contractures

63

4. Acupuncture related to manual therapy

- Energetic levels



64

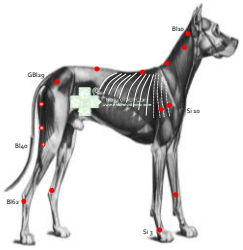
4. Acupuncture related to manual therapy

- The 8 wonder vessels with their openning key points:
  - Ren mai (Lu 7) & Chong mai (Sp 4): Ventral
  - Du mai (Si 3) & Yang qiao mai (Bl 62): Dorsal
  - Yin qiao mai (Ki 6) & Yang qiao mai (Bl 62): Lateral relating dorsal with ventral
  - Yin wei mai (Pc 6) & Yang wei mai (Th 5): conects right with left & front with back part
  - Dai mai (Gbl 41): Horizontal belt at the height of L2

65

4. Acupuncture related to manual therapy

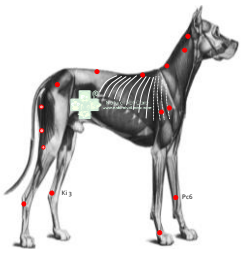
- Dorsal Area
  1. Treat myofascial chronic pain through wonder vessels (Du mai y Yang qiao mai): 3ID & 62V on both sides. 10 – 20 min.
  2. (Less advisable): Add local points on areas with contractures (i.e. Hua Tuo Jia Ji) for the paravertebral m., Gbl 29 for the gluteal m. or the Si 10 for infraspinatus & deltoid m.
  3. Involve divergent meridians: Shao yin (Ki) & Tai Yang (Bl): Bl 40 & 10 Bl. 15 – 20 min.



66

4. Acupuncture related to manual therapy

- Dorsal Area
  4. Treat the diaphragmatic tightness related to the rhomboid muscle and paraspinal m. on the left and the iliocostal and lumbar paravertebral m. on the right
  5. Add Pc 6 & Ki 3 if chronic pain to relax the area and avoid adrenal axhaustion
  6. Treat trigger points at the paravertebral m.
  7. Strength the Yin: If Tai Yang (Si & Bl) is reinforced, Shao Yin (He & Ki) must be reinforced as well, i.e. Tonifying with Ki 3 or Ki 7



67

4. Acupuncture related to manual therapy

- Dorsal Area
  8. Main points to support the treatment:

  Si 9 for interscapular area

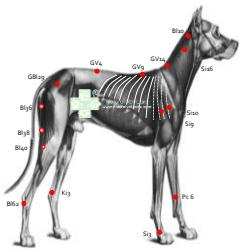
  Si 16 for escaleno m.

  Bl 36-38 for semitendinosus y semimembranosus m.

  GV 4 for lumbar m.

  GV 9 for the thoracic m.

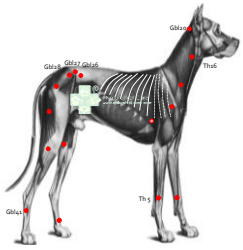
  GV 14 for the cervical m.



68

4. Acupuncture related to manual therapy

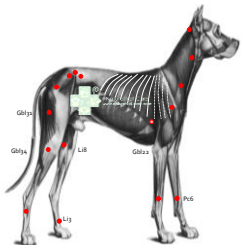
- Lateral Area
  1. Myofascial relaxation/pain relief through wonder vessels dominating the lateral area: Dai mai & Yang wei mai with Gbl 41 & TH 5 in opposite sides. 10 – 20 min.
  2. Add Gbl 26, 27 & 28 to relax the oblicual m. and iliopsoas.
  3. Treat with divergent meridians Th & Pc with Th 16 to release neck muscles. Combine with Gbl 20 to release trapezium m.



69

4. Acupuncture related to manual therapy

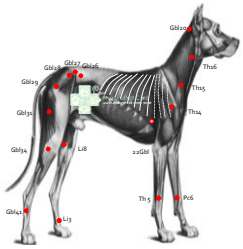
- Zona lateral
  4. Myofascial relaxation with Gbl 22 to release pectoral m. Combine with Li 3 & Pc 6
  5. Release Vasto lateral m. With Gbl 31 and peroneal long m. with Gbl 34
  6. Trigger points of supraspinatus, latissimus dorsi, deltoid & triceps m.
  7. Strength Yin of this area: If Shao Yang (Th & Gbl is strenght , Jue yin (Pc & Li) needs reinforcement, i.e tonifiying Li 3 or Li 8



70

4. Acupuncture related to manual therapy

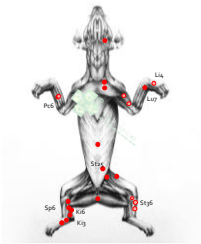
- Zona lateral
  8. Main points to support the treatment
  Gbl 31 for the iliotibial area
  Gbl 29 for the tensor fascia lata m.
  Th 14 for the supraespinatus m.
  Gbl 20
  Th 15 for the supraespinatus m.



71

4. Acupuncture related to manual therapy

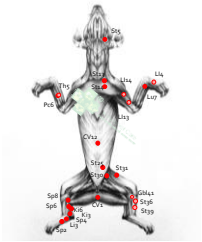
- Ventral Area
  1. Open the ventral area through the wonder vessels Chong mai & Yin wei mai. Sp 4 & Pc6 in oposite sides. 10 – 20 min. Add Ki 3 to reinforce Kidney and the relationship "cranial-caudal"
  2. Include union points of Ren mai (Lu7) & Yin qiao mai (Ki6) if there are problems in the umbilical area
  3. Open ventral Yang ming with St36, Sp6 & Li4. If there is gastrointestinal pain combine with St 25



72

4. Acupuncture related to manual therapy

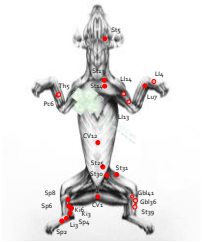
- Ventral Area
  4. Use CV 12 & Li3 to open the medium jiao. I.e. cistitis use Li3 & Sp 8
  5. Use St30 & St13 to help with the recto abdominalis m.
  6. To treat the iliopsoas open Chong mai & Dai mai because it crosses both of them using a contralateral strategie: Sp 4 right, Gbl 41 left, Pc6 left, Th5 right
  7. Strength Yin of the area: If Yang ming (LI & St) is reinforced, then Tai yin (Lu & Sp) should be tonified i.e eith Sp 2. Sp 6 should be included as it is the YIN meeting point



73

4. Acupuncture related to manual therapy

- Ventral Area
  8. Main points ti support the treatment:
  St 36 – 39 for tibial anterior m.
  St 31 for recto femoralis m.
  St 14 for pectoral m.
  St 5 for maseter m.
  LI 13 for biceps braquial m.
  LI 14 – 15 for deltoid m.
  CV 1 for the pelvic floor



74

Questions

https://pixabay.com. Galliger

75