

Posture and Movement in the Sport Horse According to TCM



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Abstract

Specific energetic conditions determine posture and movement in the sport horses. These involve both the flow of energy (Qi) along the meridians and the fascial system. Energy levels play an important role ensuring passage of Qi and the maintenance of correct posture according to the principles of structural integration (Rolfing). The normal flow of Qi ensures correct movements useful for the various equestrian sports disciplines. The evaluation and possible treatment of them allows improving sports performance.

Keywords: Veterinary Acupuncture; Fascia; VeFAS®; Structural Integration; Energy Levels; TCM.

Introduction

Posture

Posture is each horse's personalized adaptation to the physical and behavioral environment; in other words, it is the way in which the individual subject reacts to the force of gravity and to the stresses of men, animals, and the environment. Posture becomes synonymous with dynamic balance. The shape and size of the horse's body influence it, and mainly involves the straight of the four limbs. The presence of horseshoes or bare foot affect posture. Pathological conditions can change posture and horses tend to adopt the most pain-relieving one. Important physiological mechanisms guarantee balance: cerebral cortex, vestibular functions (labyrinth), the cerebellum, the reticular formation, the visual and auditory receptors, the tactile and pressor exteroceptors (of the feet) and the proprioceptors of the joint capsules, tendons, muscles, and viscera (enteroceptors). Furthermore, recent studies seem to confirm that renal baroreceptors may also have an important role. Head, teeth, temporomandibular joint (TMJ), neck, spinal column which in horses is horizontal (in humans it has vertical development) influence posture. The fascia influences posture by generating a tensional force that keeps the bones in the correct position and distance from each other, stabilizing the structure and placing it in a state of pre-tension. The myofascial meridians, traction lines that are superimposable on the TCM meridians, create a three-dimensional fascial continuity (biotensegrity).

Movement

Movement is the ability to move the entire body in space or just a part of it. The impulse to movement is due to sensorimotor activity translated into force by the posterior train and transmitted through the spine to the anterior train. The pelvis helps to facilitate the passage of impulse from the hind limbs to the spine. The horse's gaits are walk, trot, canter, gallop to which amble and tölt are added as artificial gaits. The movements are very different if the horse performs them freely or if the horse is ridden. The animal body is organized around its center of gravity, but during movement, this balance point varies continuously. The movement derives from an extraordinary complexity of interaction and coordination among multiple systems. The fascia influences movement by the interaction of distributed and balanced tension and decompression forces that give plasticity to the musculoskeletal system [2].

Posture in Traditional Chinese Medicine (TCM)

According to TCM, the Tai Yang energy level manages posture. The Urinary Bladder (BL) meridian plays a decisive role; it starts from the medial canthus of the eye (BL 1 - Jing Ming) and reaches the lateral aspect of the crown of the hind limb (BL 67 - Zhi Yin). BL 1 is intersection point of the BL, SI, ST, GB, Yin Qiao Mai, Yang Qiao Mai vessels. BL 1 activates the epiphysis - hypothalamus - pituitary - gonad axis. BL 67 is the metal point of the meridian, and the Kidney channel is closely connected to it (it is the point

of change of Yang - Yin energy polarity). BL 67 regulates and tones Kidney Qi (Kidney Qi deficiency causes lack of strength and postural anomalies). It is interesting to underline the role of the kidneys in maintaining posture. Today scientific trials confirm this role already described in ancient texts. The Governor Vessel (GV, Du Mai), traditionally considered the Channel of space Direction, is of considerable importance in maintaining posture [3].

Movement in Traditional Chinese Medicine (TCM)

According to TCM, the movement generates as an impulse of the Zhi - Will, the psychic component of Kidney that resides at the level of this Zang-organ. From Kidney, a Yang vibration is triggered which emerges at GV 3 (Yao Yang Guan). In TCM, the Kidney determines all the movement of the pelvis. The Dai Mai and the GB channels support the oscillation of the pelvis and protect the lumbar area and the kidney itself. In fact, on the GB channel there is the Mu point of the KI: GB 25 (Jing Men), which is located at the free end of the last rib. According to Ida Rolf (1978): “the last rib has to do with breathing, digestion, elimination and reproduction” [4]. From this area, a rocking movement of the entire pelvis begins which involves some acupoints: GB 29 (Ju Liao) - GB 30 (Huan Tiao) - GB 31 (Feng Shi).

The oscillation of the pelvis is transmitted to the hind limb through GB 34 (Yang Ling Quan) up to BL 62 (Shen Mai) with consequent flexion of the hock and further push of the impulse towards BL 67. The hind foot is thus stressed, and the energy flow goes back up to BL 61 (Pu Can) which generates the opening of the hock, the snap in forward of the joint and the consequent transmission of the vibration to GV 1 (Chang Qiang) from which it then begins to flow along the entire spinal column. The Yang impulse arrives at GV 9 (Zhi Yang) and from here, it shoots forward and towards the withers, GV 14 (Da Zhui), which distributes it towards the neck and head via GV 16 (Feng Fu) and GV 20 (Bai Hui). From the withers, the signal continues towards the front limb activating its different sectors: shoulder SI 10 (Nao Shu), elbow LI 11 (Qu Chi) - LI 10 (Shou San Li), arm TE 9 (Si Du), fetlock SI 3 (Hou Xi), foot SI 1 (Shao Ze). From here, the impulse goes back to TE 5 (Wai Guan) allowing the flexion of the carpus and the progression of the front limb [5].

Posture Diagnosis

The objective of the inspection is to evaluate grounding, i.e. the ability to connect to the soil. This ability also involves the horse’s awareness of being in a precise point of space and its behavioral attitude (Shen). Through grounding, it evaluates the play of tension and decompression forces that are distributed and balanced throughout the body (tensegrity). The shape of the foot, the presence of horseshoes or the bare foot affect the degree of connection with the ground. Palpation of all sectors of the body, fascial lines and diagnostic acupoints provides information on areas of tension and deficit. The evaluation of the meridians that contribute to its maintenance complete the examination of

posture. Mainly considered are Tai Yang level, Qiao channels, GV.

Movement Diagnosis

This diagnosis involves an accurate evaluation of the movement of the horse in freedom, on the rope, mounted. Furthermore, it is evaluated the quality of movement at different gaits (walk, trot, and gallop). It is essential to observe the relationship between flexors and extensors: in fascial terms, a body disorder will first manifest itself in the extensors. The shape of the foot, the presence of horseshoes or the bare foot influence the execution of the movements [7]. The evaluation of the movement also considers the energetic progression from one sector to another, starting from GV 3 and throughout the circuit described above. Finally, based on the sporting activity performed by the horse are examined specific movements. In both diagnosis and recoding posture and movement, it is important to evaluate the Homotoxicological remedies of the orthopaedic segments (Table 1).

Table 1: Orthopedics Correspondences.

Sector	Correspondence
Neck	Tail
Shoulder	Hip
Elbow	Stifle
Arm	Leg
Carpus	Tarsus
Metacarpus	Metatarsus
Front Feet	Hind Feet

Recode the Posture in Traditional Chinese Medicine (TCM)

The combination BL 1 - BL 67 (node point and root point of Tai Yang respectively) recodes the posture. The combination SI 3 - BL 62 is important as it stimulates the circulation of Qi along GV and Yang Qiao Mai. There is a correspondence between the node acupoints and the root acupoints of each energy level and the selective use of the Extraordinary Vessels (Qi Mai) activated by their cardinal acupoints (Table 2).

Table 2: Correspondence between Energy Level and Qi Mai.

Energy Level	Acupoints
Tai Yang	SI - BL
	BL 1 - BL 67
	SI 3 - BL 62

Du Mai

- It is Yang Sea
- It strengthens the entire spine
- It supports Kidney Yang

- It nourishes spinal cord and brain
- It eliminates internal and external wind.

Pathway

➤ CV 1 – GV 1 – GV 28
(*Nao*)

Brain

➤ Luo Channel of Du Mai: GV1 – GV 12 – GV 13 – GV 16

Back

– Kidney.

Yang Qiao Mai

- It promotes joint mobility
- It intervenes in the first part of the physiological cycles
- It is linked to syndromes and therapies with *Gui* points – paralysis and trauma
- It treats disorders of sense organs.

Pathway:

➤ BL 62 - BL 61 – BL 59 – GB 29 - SI 10 – LI 15 – LI 16 – ST 9 – ST 4 – ST 3 – ST 1 – GB 20.

Recode the Movement in Traditional Chinese Medicine (TCM)

The combination of points GV 3 - BL 52 (Zhi Shi) facilitate the correct expression of the Zhi and the beginning of every movement of the whole body or part of it. These are voluntary movements, that is, intentional and directed actions generated by internal needs. External stimuli can also elicit voluntary movements.

To coordinate all the movements of the pelvis, we use the points that manage the reciprocity system (Figure 1):

1. Pelvic oscillations GB 29 – GB 30
2. Dynamic position of the sacrum BL 31 (Shang Liao) – BL 32 (Ci Liao) – BL 33 (Zhong Liao) – BL 34 (Xia Liao)
3. Knee support KI 10 (Yin Gu) – GB 34
4. Hock excursion KI 6 (Zhao Hai) – BL 62.

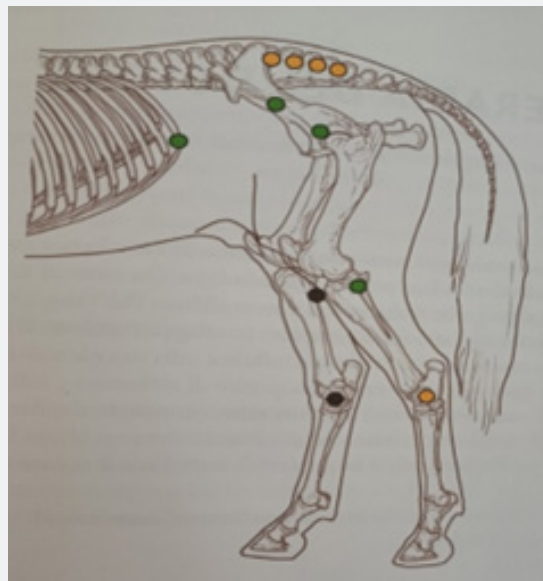


Figure 1: Energy Circuit of Reciprocity System.

To facilitate the movement of the impulse from the feet along the hind limb, stimulation of the Hou Chan Wan points is used (point 148 of the ancient charts).

With the aim of promoting the progression of Qi along the spinal column, different Du Mai points are used. Very important is GV 9 its name describes its function: “Arrival of the Yang” (Zhi Yang). The impulse reaches this point and from here, it is pushed towards the front of the spine. GV 14 collects this impulse and distributes it towards the neck and the front limb. To facilitate the movement of the impulse from the feet along the hind limb,

stimulation of the Qian Chan Wan points is used (point 113 of the ancient charts) [8]. TE 15 (Tian Liao) promotes the progression of the impulse along the neck and towards the head. Stimulating GV 24 (Shen Ting) recodes the entire movement of the horse. GV 24 is meeting point of ST – BL meridians, it acts on nape, head, brain, cerebellum. It treats Shen disturbances, and it improves every other treatment. In clinical practice it is resorted to the heterodox use of Extraordinary Vessels, pairing them according to the pathological conditions treated or according to the sporting discipline practiced by the horses (Table 3).

Table 3: Heterodox Employment of Qi Mai.

Qi Mai	Qi Mai	Functions
Du Mai	Chong Mai	Spinal pathologies
SI 3	SP 4	Bone marrow degeneration due to Blood (<i>Xue</i>) deficiency
		Post-surgical treatments of the spine
Du Mai	Dai Mai	Pelvic diseases
SI 3	GB 41	Pathologies of the <i>Bao Mai</i>
		Joint pathologies (<i>Shao Yang</i>)
Du Mai	Dai Mai	Yang support therapy
SI 3	GB 41	Improved sports performance
		Functional recovery after paresis/paralysis
Yang Qiao Mai	Yang Wei Mai	
BL 62	TE 5	
Du Mai	Yang Wei Mai	Exacerbation in chronic osteo-joint diseases
SI 3	TE 5	Flare-ups in chronic spine pathologies
Yang Wei Mai	Yin Wei Mai	Chronic carpal pathologies
TE 5	PC 6	Alterations in healing processes
		Bone deformations, swelling
		Antiaging function: slows down aging and degenerative processes
Ren Mai	Chong Mai	Yin diseases accompanied by Blood (<i>Xue</i>) deficiency
LU 7	SP 4	(<i>Tai Yin</i>)
Ren Mai	Yin Qiao Mai	Contemporary pathologies of the carpus and tarsus with concomitant difficulty in the diffusion of Qi from LU to KI
LU 7	KI 6	
Yin Wei Mai	Yin Qiao Mai	Regularization of Yin structures
PC 6	KI 6	(the combination is enhanced by the simultaneous stimulation of CV6)
Ren Mai	Yin Qiao Mai	Yin support therapy
LU 7	KI 6	After major surgical interventions
Yin Wei Mai	Chong Mai	
PC 6	SP 4	
Du Mai	Ren Mai	They balance the body's Yin/Yang
SI 3	LU 7	They activate the Small Circulation of Qi (<i>Xiao Zhou Tian</i>)
		Useful to conclude a cycle of acupuncture in chronic pathologies
		After major surgeries

Homeosiniatry

Homeosiniatry is a medical methodology that combines homeopathy and acupuncture. It involves the inoculation of homeopathic and Homotoxicology remedies into the acupoints, but also the administration of homeopathic remedies in granules among acupuncture sessions. Based on the diagnosis of TCM are

selected and administered homeopathic remedies in different dilutions.

It is possible employ:

Bellis Perennis

- Repeated tears, sprain

- Muscle fatigue
- Back sprains
- Trauma of the hind limbs
- Traumas like Arnica montana but for deeper tissues – Tong Bi Syndromes.

Causticum

- Tremors, cramps, muscle contractures, convulsions
- Inflammatory and degenerative processes resulting in ankyloses
- It eliminates toxic heat – Re Bi Syndromes.

China Rubra

- Asthenia and weakness, especially in elderly and female animals
- Sweating with even the slightest effort
- It tones the Kidney.

Clematis Erecta

- Urogenital diseases (prostate)
- It supports Kidney Yang especially in elderly males.

Colocynthis

- Inflammation of the (right) hip joint
- Stiffness of the hind limbs
- Rheumatic pain along the nerve trunks (especially sciatic nerve)
- Pain in the lumbosacral region
- Sharp cutting pains along the back
- It tones Gall Bladder.

Gelsemium Sempervirens

- Asthenia and muscular hypotonia
- Tremors

- Reduced motor coordination
- Particular affinity for nape, neck, spine, knee
- It promotes flexibility and fluidity in all areas
- It facilitates the flow of Qi.

Ledum Palustre

- Trauma and joint pain
- Support for the function of intervertebral discs.
- It is effective in Zhuo Bi Syndromes.

Natrum Muriaticum

- Lumbago
- Pathologies affecting the intervertebral discs (alteration of their degree of hydration)
- Support for Yin Je.

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