

The use of acupuncture and conventional drugs in the treatment of a cat with paraparesis

Abstract: An 11-year-old, 4 kg spayed-female domestic shorthair presented in lateral recumbency with acute paraparesis and extensor rigidity of the hind limbs, good femoral pulses, an atonic bladder with bacterial cystitis, and no deep-pain reflexes in the rear legs. Laboratory results and radiographs were normal. After a poor response to corticosteroid therapy, the referring veterinarian sought a consultation with Traditional Chinese Veterinary Medicine (TCVM) as an alternative to euthanasia. TCVM treatment of the patient included daily aquapuncture with a dilute Vitamin B12 solution. The cat showed a response to therapy within 24 hours of the first aquapuncture treatment. Four days after the initial aquapuncture therapy, the cat was ambulatory and urinating on its own when discharged. Subsequent follow-up treatments reveal a cat that is gaining strength and walking normally.

An eleven-year-old 4-kg spayed-female domestic shorthair, named Stripes, presented with difficulty walking of one-week duration. The cat had no history of trauma or any other previous problems. Upon presentation, the patient had acute paraparesis with extensor rigidity of both hind limbs. Physical examination revealed a body score of 3/10. Temperature, pulse and respiration were normal. The patient had a gallop-rhythm upon heart auscultation and good bilateral femoral pulses. The cat was in sternal recumbency with paraparesis and extensor rigidity of both back legs. There were no deep pain reflexes in either of the hind limbs and the patient was unable to voluntarily urinate. Spinal radiographs of the patient were normal. The complete blood chemistry, CBC, and thyroid profile were normal. Urinalysis revealed a bacterial cystitis.

The differential diagnosis at this time included bacterial cystitis with fibrocartilagenous embolism or partial femoral thrombus. The owner declined additional diagnostics or a referral. Medical treatment at this time included an initial injection of 10mg of Solu-Delta and 62.5mg Clavamox orally. Follow-up patient care included 5mg of prednisolone and 62.5mg Clavamox, orally, twice daily. In addition, the cat received general nursing care and twice daily manual expression of the bladder. During the next five days, the patient became more depressed and anorexic as the cystitis cleared. The cat progressed to a poorly responsive lateral recumbent patient. Femoral pulses remained normal; however, there was no neurological improvement in the hind legs. Due to the worsening of the cat's mentation and the lack of response to treatment, the referring veterinarian offered euthanasia or a consult with a Traditional Chinese Veterinary Medicine (TCVM) practitioner.

The TCVM examination revealed a thin patient with a depressed Shen, generalized muscle wasting, hind-end paresis, and bilateral extensor rigidity of the rear limbs. The tongue was pale lavender in color. Pulses were fast, deep, and thready with the pulses weaker on the right side of the cat. The TCVM diagnosis was Kidney Qi deficiency with Spleen Qi Deficiency and Spinal Qi Stagnation. Initial treatment included hemo-acupuncture at Wei-Jian (to relieve stagnation) and dry needle acupuncture at GV20 and Bai-Hui (permission points). Initial acupuncture treatment also included dry needling on the left side of the patient at BL23 (Kidney back-shu association point), Shen-Shu (a classical acupoint transposed from horses, located 1.5 cun lateral to Bai-hui,

for Kidney), KID3 (Kidney source point) and ST36 (hind limb “3 mile” point, promote Qi). The patient resisted the acupuncture needles. Consequently, treatment changed from dry needle to aquapuncture with Vitamin B12 (1:4 ratio with saline; a total of 1000 mcg administered) on the right side of the patient at LI10 (front limb “3 mile” point, promote Qi), Shen-Shu, KID 3 and ST36. The patient’s resistance to being needled demonstrated its fire constitution.

The patient showed an immediate response to acupuncture by a change in the tongue color. The tongue lost some of the lavender appearance and became pinker in color. Approximately six hours after the initial acupuncture treatment, the referring veterinarian noted voluntary movement in the right hind leg. The prednisolone, Clavamox, and nursing care continued with no change in the medical treatment protocol.

On re-examination the next day, the patient was brighter and in sternal recumbency. There was voluntary movement in the right hind limb with a good superficial pain response. The left hind limb was in extensor rigidity with no deep pain reflex. Acupuncture treatment included hemo-acupuncture at Wei-Jian, and aquapuncture with Vitamin B12 (1:4 ratio with saline, a total of 1000mcg administered) at GV20, Bai-hui, ST36, LI10, KID3, HT7 (Heart source point, balance), Shen-Shu and Shen-Peng (a classical acupoint transposed from horses, located 1.5 cun lateral to the dorsal midline and 1.5 cun cranial to Shen-Shu; for Kidney). The patient received prednisolone, Clavamox, and nursing care as described.

Upon re-examination on day three, the cat was sitting on its haunches in the crate with a more normal Shen. Overnight, the patient urinated voluntarily in a litter pan. The cat attempted to push off with both hind legs, but was too weak to support its weight. Treatment included hemo-acupuncture at Wei-Jian and aquapuncture with Vitamin B12 (using a 1:4 ratio with saline, with a total of 1000mcg administered) at HT7, LI10, ST36, KID3, Shen-Shu, Shen-Peng, GV20 and Bai-Hui.

On the fourth day after the initial TCVM examination, the cat was normally responsive, and urinating on its own. The urinalysis was normal. The patient walked in a crouched posture with poor conscious proprioception. Aquapuncture treatment with Vitamin B12 (diluted to 1:4 in saline, with a total of 1000mcg administered) included injections at Bai-Hui, GV20, ST36, LI10, KID3, Shen-Shu, and Shen-Peng. Treatment also included hemo-acupuncture at Wei-Jian. The referring veterinarian discontinued the prednisolone and Clavamox at this time and discharged the cat.

The patient presented for re-evaluation one week after discharge. The cat was noticeably stronger with great Shen and a normal appetite. The tongue was pale lavender in color. Pulses were deep; however, they were weaker on the right side. The patient walked with a normal posture for short periods of time. Aquapuncture using Vitamin B12 (diluted to 1:4 with saline, a total of 1000mcg total administered) included HT7, ST36, LI10, KID3, Shen-Shu, Bai-Hui, GV20, Shen-Peng, BL40 (master point for hind-end weakness) and LIV3 (to eliminate Qi stagnation).

The patient presented twelve days later and was ambulatory with normal posture. The cat was noticeably stronger and attempted to jump on and off the examination table. The TCVM examination revealed great Shen with improved muscle mass and weight gain (from 4 kg to 5.2 kg). The back was cool upon palpation. The tongue was pale pink to lavender in color. The

pulses were deep and weaker on the right side of the cat. The diagnosis was Kidney Yang deficiency with Spleen Qi deficiency. The following points received aquapuncture using Vitamin B12 (a 1:4 dilution with saline, with 1000mcg total administered): ST36; KID3; BL23 (Kidney back-shu association point); BL20 (Spleen back-shu association point); BL21 (Stomach back-shu association point); GV3 (support Kidney); and SP6 (Spleen support).

A follow-up telephone conversation with the owner of this cat occurred 90 days after initial TCVM treatment. That conversation described an ambulatory cat with normal posture that was climbing trees. This patient was eating well and now weighed 5.6kg. The owner indicated that the cat was playful and behaving as if it was a kitten.

Acute hind-limb paresis is a problem that can occur in cats. Differential diagnosis includes: trauma; intervertebral disc disease; Aortic thrombus; discospondylitis; infectious diseases (e.g.: Toxoplasmosis, Feline Leukemia, Feline Immunodeficiency Virus, Feline Infectious Peritonitis, Rabies and various fungal infections); intoxication; electrolyte or glucose imbalances; and space occupying masses of the spinal column (including hematomas, embolisms or neoplasia). Determination of the exact cause of paraparesis requires a complete history and a large battery of diagnostic testing. Often, the definitive diagnosis is not made due to limitations set by financial restrictions. A complete history and physical examination, laboratory testing and radiography eliminate many of the causes of this disease. In many cases, treatment decisions revolve around what diseases are not present and the financial restraints placed by the owner. Use of corticosteroids commonly occurs for the anti-inflammatory action against inflammation associated with intervertebral disc disease, hematomas, fibrocartilagenous embolism, and neoplasia. Unfortunately, not all patients are responsive to corticosteroids. The lack of response to therapy initiates a dilemma that often leads to euthanasia. Integrative medicine is an additional tool for the treatment of paraparesis and provides an alternative treatment option for the pet owner. Integrative veterinary medicine includes such modalities as TCVM, massage therapy, physical therapy and chiropractics. Extensive use of these alternative therapies in the human medical field is very successful. The veterinary profession needs to adopt and expand on this model by including these complimentary medical modalities more frequently in patient care. Routine use of integrative medicine can help maximize the animal's response to veterinary intervention. In this case, successful use of aquapuncture saved this patient's life.

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