

Case Report

2020-2021 Course

Ramsel, Belgium

Report Title

Acupuncture as a Treatment of

Elbow Dysplasia in a Dog.

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TITLE

Acupuncture Was Used as a Treatment of Elbow Dysplasia in a dog.

ABSTRACT

Acupuncture therapy was successfully used as a treatment of lameness due to elbow dysplasia in a mixed breed dog. For a period of two months dry needle acupuncture therapy was used, 4 sessions in total and 2 follow ups. Gradually overall well-being and the limping symptoms improved, and the dog's quality of life got much better.

HISTORY

An eight-year-old neutered female street dog mix presented with chronic limping on the right forelimb. The dog was first diagnosed with degenerative elbow dysplasia (right side) in March 2020 and in September 2020 with a total ACL (anterior crucial ligament) rupture in the left knee. The dog received a TPLO (Tibial Plateau Leveling Osteotomy) surgical treatment shortly after the injury and the surgery was followed by some rehabilitation. It had a very long and slow recovery.

Other symptoms like weight gain and difficulty to lose weight for the past 2 years were also present. When some dermatological signs came along like partial alopecia Tessa was diagnosed in January 2021 for Hypothyroidism.

Tessa was found on the street and adopted as a puppy around the age of 5 months. She was the smallest one from the litter, the most shy and skeptical one. She was easily frightened from most things in the beginning. Later, it got better, and she developed more confidence but there were still things that were triggering, like men in general and people's legs/feet. The owner could never lift her feet up or have them close to the dog when they were on the sofa for example and was certain that her dog was kicked as a younger puppy.

Tessa likes and enjoys food and therefore must be limited but had never had problems with her weight until lately. She has been slim and thin even though she was neutered before her first heat at the age of approximately 7- 8 months. She is very good in finding food rests when the owner walks her and loves bread which was probably the main food scrapes she got as a puppy.

Different Non- Steroidal- Anti-inflammatory Drugs (NSAIDs) were tried out, some without being very effective or providing a very short relief, like Galliprant (Grapiprant), Onsior (Robenacoxib), Previcox (Firokoksiband) and Canidryl (Carprofen).

Librela (Bedinvetmab) was also used a few times but the owner wasn't sure in the effectiveness. It was discontinued due to shortage of the supplier.

When the symptoms were at it's worse and the joint was very swollen the treatment was intraarticular methylprednisolone. It was done five times in total with a quick and good effect according to owner but temporarily, lasted for only 4-6 weeks.

At this same time joint fluid was obtained and due to the inflammatory appearance, it was sent for culture. It came back negative.

In the beginning of February this year Tessa had an arthroscopy in her right elbow where the veterinary surgeon curetted a lot of debris and extra tissue from the right elbow joint. She

seemed a bit better after the procedure but again only for approximately a month and still had to be on NSAIDs all the time.

The current medication of the dog is Esomeprasol 20 mg q 24 PO, Previcox (Firokoksiband, 5,4mg/ kg q 24h PO) and Forthyron (Levothyroxine, 9,5mg/kg q 12h PO).

CLINICAL SIGNS/ DIAGNOSTICS/ DIAGNOSIS (WESTERN)

The owner's main complains and reason to seek acupuncture/ alternative treatment was the limping that had progressed a lot since the diagnosis of arthrosis of the right front limb 2 years ago. The permanent use of NSAIDs wasn't a solution and an outcome the owner wanted, besides, the efficacy seemed less with time.

The ACL injury was stabilized with surgery and even though the left hindleg was still weak and there was some muscle atrophy, it is functional, the dog uses it well and can still run rather fast occasionally.

The Hypothyroidism was finally suspected when partial alopecia showed up on the midline. The results came back compatible for Hypothyroidism with low TT4, low free T4, high TSH in blood serum and mild anemia.

After starting the medication with Levothyroxine, the symptoms like anemia, weight gain, dandruff/ fat seborrhea and alopecia, resolved quite fast and seemed under control but there were still occasional flare ups, mainly dandruff which never really cleared up, just got better.

New follow up radiographs were made in the beginning of this year and there weren't significant changes in the right elbow since the previous ones done in 2018 besides more soft tissue reaction and swelling. But there were also signs of degenerative joint disease in the left elbow too, even though no symptoms or clinical signs there currently (See radiographs in addendum).

CLINICAL SIGNS/ DIAGNOSTICS/ DIAGNOSIS- TCM (EASTERN)

In addition to the arthritis, the anterior cruciate ligament rupture and the hypothyroidism symptoms mentioned above the dog had changed its hair color. The coat had become lighter, almost whitish underneath the black color. In other words, the dog still looked black and dark in color, but when you stroke the coat against the hair's direction one could easily see the greyish/ whitish discoloration underneath (see photograph in addendum). There was still dandruff / seborrhea present even though to a lesser extent according to owner. The coat wasn't very nice and shiny full but looked rather old and lifeless and by owner this has happened gradually for the past 2,5- 3 years.

Before that period the owner was traveling often, and Tessa had to be in a kennel for 1-2 weeks a few times annually. She didn't like this and was "crying" the whole day after reunited with the owner. The owner hated leaving Tessa too, so she discontinued traveling due to bad consciousness about this. She believes that this was emotionally too much for Tessa and that her mental status might have triggered all her problems.

Tessa prefers warmer places and likes to sunbathe but not for too long. She does not tolerate heat or extreme hot weather and seeks cooling. Petting and massage is the best thing she knows and it's never enough. Her stools are normal with occasional diarrhea often in connection with eating some food rests she has found when on tour.

She has difficulties getting up and is slower and stiffer in the mornings, during the day it gets better and is most active in the evenings.

The right elbow joint felt slightly bigger than the left one and warmer. There was slight but detectable muscle atrophy in the triceps muscle.

Tessa has a Metal constitution. Thin, slim, and elegant. Intelligent and reserved, organizes, watches/ observes. Even though she is a very careful and gentle dog, she has had episodes where she is out of control and shows aggression to a particular dog or person. There is usually a trigger factor for this but not always.

The tongue has a hammer form, no coating, rather pale and is not symmetrical, kind of swollen on the right side where is the area of the GB (photograph in addendum).

Pulse was deep and weak, especially on the left leg in general or on all 3 positions there. This is due to the ACL rupture, the operation, and the slight muscle atrophy in the left leg.

The Association Back (Shu) sensitive points (1st exam):

BL 14 (PC), BL 17 (Diaphragm), BL 18 (LIV), BL 21(ST), BL 23 (KI) and BL 25 (LI).

The Alarm (Mu) points that I had a reaction to on the 1st exam where the one of Kidney, GB 25 and the Liver, LIV 14.

Symptoms summary and connection to the 5 elements:

Arthrosis, Change of hair color – Water (Kidney- bone, hair color).

ACL rupture – Liver – tendons/ ligaments

Aggressiveness- Wood

Weight gain, Alopecia, Dandruff – Earth (Spleen)

Diagnosis: Kidney Jing deficiency.

The diagnosis was mainly based on the anamnesis (smallest puppy in the litter, reserved, easily scared and sceptical character) and the change of coat colour gives us information about the weak Kidney essence.

Tessa like all street puppies did not receive proper nutrition and well-balanced diet, especially in her early development. This probably led to developmental retardation regarding the bones and tendons. The consequences of this we see in the clinical signs of arthritis and ruptured anterior cruciate ligament. The symptoms of Damp-Heat with Qi and Blood stagnation in the right elbow joint are compatible with Bony Bi syndrome. Blood deficiency is also a manifestation of the Jing essence deficiency and in this case, we see the typical signs of not enough blood distribution, namely the dry skin (dandruff) and dry, lifeless coat. The warm-seeking behaviour, pale tongue and deep, weak pulse is compatible of general Qi and Blood deficiency.

There are some cold signs, so the Yin/Yang level is also involved and not just the Qi and Blood. The Hypothyroidism leads us also to a deficiency problem and can be explained by the Qi deficiency and Yuan/ Original Qi deficiency.

The consequences that followed the Kidney Jing deficiency (Blood deficiency, Spleen Qi deficiency, Kidney Blood deficiency and Bony Bi) can be logically explained by the interaction between the five elements in the Five Phases Theory.

CONVENTIONAL (WESTERN) TREATMENT

The permanent medication of the dog is: Esomeprasol 20 mg q 24 PO, Previcox (Firokoksiband 5,4mg/ kg q 24h PO) and Forthyron (Levothyroxine 9,5mg/kg q 12h PO), and that wasn't changed.

After the second session I cut out the Previcox and Esomeprasol. Meanwhile I added Neurontin (Gabapentin 14 mg/ kg q 12h PO) which was gradually reduced after the fourth session and eventually stopped completely. There weren't any significant changes after the owner stopped the NSAID.

TCM (EASTERN) TREATMENT

The treatment principle is to treat the root of the problem which in this case is the Kidney Qi deficiency or the Jing deficiency.

Main treatment strategies will be:

To tonify Qi and Blood; to move Qi- blood to resolve stagnation; to nourish Yin, nourish the bones and moisten the sinews.

In addition, the Spleen also needs to be supported and tonified, even though not a lot of signs showing now because of the thyroxin tablets, but it is an underlying problem from the anamnesis.

Locally for the arthritic elbow (Bony Bi) the main TCM principals will be to:

- Eliminate the painful Heat obstruction
- Tonify Qi
- Promote the circulation of Qi and Blood
- Unblock the channels
- Support the original Qi
- Disperse Wind and dispel Damp-Heat

The TCM treatment should support the joints, tendons, and ligaments and improve the circulation, the flow of Qi and Xue; to prevent further damage, like the continuous formation of new tissue and the calcification of the arthritic joint. All this should relieve the pain and help with the forelimb lameness, and by thus improving mobility.

The main goal will be to improve the quality of life of the patient.

Dry needle technique was used in all sessions. Needle size 0,25 x 25 mm for the deeper areas and muscles and for the back where the placement was at a depth of approximately 1 cm. For the extremities and the more superficial areas the needle size was 0,22 x 13 mm and the depth of penetration was less than 0,5 cm. The needles where not rotated for stimulation or draining due to the nervous character of the patient and were left for 15 – 20 minutes. Sometimes they fell off on its own a bit earlier especially where bony structures were present, and they were lying more superficial or where there were muscles contractions.

Session 1 (March 21, 2022):

KID 3 left. Yuan source point for the Kidneys, Tonifies the Kidneys and supports Kidney Jing, also strengthens the caudal back. Shu- stream point (transporting).

The left was chosen as it was more sensitive than right. Ah Shi point.

GB 34 right. Influential (Hui-) point for tendons and ligaments. Benefits the Liver function of patency of the smooth flow of Qi, Expels dampness.

PC 3 left. Clears Heat and moves blood. Local point for elbow pain relief. This is a problem here as the right point was way too sensitive. That is why I decided to use the mirroring point for this joint or PC 3 left.

LI 4 right. Ah Shi point. Clears Heat and resolves stagnation.

I also recommended gentle massaging of the dog, both muscles and joints. Preferably in the morning before getting up in order to help the circulation of Qi and Blood.

Session 2 (March 29, 2022):

Owner confessed that she did not see a big change the limping but in general Tessa was doing a little bit better. She seemed livelier and got up easier/ earlier in the mornings. This might be also due to less stiffness.

Unfortunately, Tessa was sceptical and scared (vigorously shaking) from me especially when put on the table this time. I tried to make her as comfortable as possible by working on the floor instead and avoided needling distal points this time.

Back Shu and Mu points weren't possible to check due to too much shaking. The right elbow still felt warmer than the left but to a lesser extent.

I did repeat GB 34 but the right one this time and added:

BL 11 bilateral. Influential (Hui-) point for Bone, increases Qi, nourishes Blood, soothes the Sinews, and eases pain.

BL 23 bilaterally, Association (Shu) point for the Kidney. Tonifies Kidney Yin. Strengthens the brain, bone, and marrow. Benefits the Mind and strengthens the caudal back and stifle. Dispels and transforms Dampness.

Sp 6 right. Benefits the Spleen functions of transformation and transportation. Transforms Dampness and Damp Heat. Tonifies Qi, Blood and Yin. Harmonizes the Liver and spreads Liver Qi. Tonifies the Kidney. Moves and nourishes Blood and stops pain. the caudal back and stifle. Dispels and transforms Dampness.

Sp 9 left. He- Sea and Water point. Benefits the Spleen function of transportation and transformation. Dispels Dampness and Heat. Also, local point for the stifle.

ST 36 right. He- sea point, Earth point. General weakness and Lethargy. Benefits the hind limbs, especially the stifle. Helps with hind limb pain and weakness, also an aid for metabolic and endocrine diseases. Tonifies Qi.

Session 3 (April 07, 2022):

This was a home visit and so were the other 2 sessions. The dog was calmer and easier to treat at home. Tessa was doing better according to the owner. The limping had improved a little bit in a way that it was not that obvious especially on the way back home from tours and not in the same degree. It still was easier to get up in the mornings and she wasn't that stiff after rest. She had a few short episodes with running and playing which reminded the owner of the old Tessa and made all very happy.

The same Association (Shu) points were sensitive (BL 17 (Diaphragm), BL 18 (LIV), BL 23 (KI) and BL 25 (LI) but this time without BL 21(ST) and BL 14 (PC).

The Alarm (Mu) points (LIV and KI) were also reactive but clearly to a lesser extent.

The pulse and tongue were without changes.

I repeated the following points from last session: BL 23 both bilaterally, also SP 9 right and added GV 14. Sea of Qi point. Meeting point for all Yang channels. Dispels Wind Heat and calms the Shen.

I decided to also add some extra local points this time even though very sensitive area:

LI 10 right. Regulates Qi and Blood, moves Qi, local point for the elbow. Clears obstructions in the channel. Powerful point for regulating and tonifying Qi and Blood, like ST 36. Clears Heat. Local point for the elbow.

LU 5 right. Water, Sedation and He- Sea point. Relaxes the Sinews and tendons. Local point

TH 10 right. Earth, Sedation and He-sea point. Clears Heat. Resolves Dampness and Phlegm. Relaxes the Sinew and tendons. Regulates Qi. Pain in the elbow and removes stagnation from the channel.

LI 11 left. Earth, Tonification and He-sea point. Clears Heat and local pain in the elbow, resolves Dampness. Benefits the Sinews and joints.

HT 3 left. He- Sea and Water point. Removes obstructions from the channel, calms the mind, clears Heat, and transforms Phlegm. Local point for pain in the elbow. Used her as a mirroring point for the left elbow but also as a local point for the right one which also has radiographic signs of degenerative joint disease.

SP 10 left. Cools, strengthens, and nourishes Blood. Eliminates blood stasis. Local point for stifle pain and stiffness.

Session 4 (April 15, 2022):

Tessa was doing very well. The improvement in walking was visible and she looked younger, happier. The joint felt less swollen, and the temperature was equal between left and right elbow this time.

The only sensitive Back (Shu) points were BL 17 (Diaphragm) and BL 23 (KI) but there was just a slight local skin twitching. Nothing compared to the first time I saw the dog when the hole musculus longissimus dorsi was contracting, the dog turned its head in the same direction and tried to bite.

I did not get a reaction at the Mu alarm points. The pulse was still deep and weak, and on the left side just slightly easier to find and feel then before even though still not equal with the right one. The tongue looked the same.

I used some old points like KI 3 but right instead of left and SP 6 left, ST 36 left, LI 10 left, LI 11 right, PC 3 right and HT 3 left. I also added:

BL 17 bilaterally. Association (Shu) point for the Diaphragm. Influential (Hui) point for the Blood. Regulates Qi circulation, tonifies Blood. Ah Shi point.

GB 39 right. Influential (Hui) point for marrow to help with Kidney Jing. It benefits and promotes the essence, nourishes the Marrow and Bones.

We agreed with the owner to start making monthly sessions instead of weekly in the future and see how it goes. Meanwhile I recommended the Chinese herb formulas form Natural care (see addendum for details) called Easy Walker (Du huo ji sheng tang by NC) and Strong Gentlemen (Liu Wei Di Huang Wan by NV).

I saw and treated Tessa monthly, 2 more times before finishing this rapport and she was stable. On the first follow up she had a reaction on the Shu points of the LIV (BL 18) and the LI (BL 25). Therefore, I decided to use only 4 needles or the so called "Four Gates" and treated her with LI 4 and LIV 3 both bilaterally. LIV 3 Moves Qi promotes the smooth flow of LIV Qi. Together with LI 4 or the "Four Gates" ensures the passage of Qi and Blood throughout the body, Calms the Mind.

On the second follow up there was a slight reaction on the following Association points: BL 14 (PC) and BL 25(LI) and I repeated my point combination form the first session without adding new points to the ones described. On both follow ups I didn't get a sensitivity in the Alarm (Mu) points and there wasn't a visible change in the tongue. The pulse felt still weaker on the left. She looked happy, mobile and was not that afraid of me anymore. She started tolerating acupuncture treatment in a better and calmer way.

Together with the owner we decided to treat her every other month for maintenance in summer period and see if she will need more frequent sessions, especially in autumn/ wintertime.

Table 1: Acupuncture points treated initially in order of treatment

Acupuncture Point	Chinese Name	Anatomical Location	Action (Intended in this case)	Innervation
KI 3 (l) *	Tai- Xi (Great Stream)	In the depression cranial to tuber calcanei, at approximately the midpoint of a line drawn from the tip of the medial malleolus to the point of insertion of the common calcanean tendon.	Source and Shu- Stream point. Tonifies the Kidneys. Strengthens the caudal back and cools Heat.	Tibial Nerve
GB 34 (r)	Yang- Ling- Quan (Yang Hill Spring)	In the depression cranial and distal to the head of the fibula.	He- sea point and Hui- (influential) point for Sinews. Benefits the Liver function of patency of the smooth flow of Qi, Expels dampness	Deep Peroneal (Fibular) Nerve
PC 3 (l)	Qu- Ze (Elbow Marsh)	In the depression on the transverse cubital crease, medial to the tendon of the biceps brachii (flexed elbow)	He- sea and Water point, Clears Heat, cools and moves Blood. Local point.	Median Nerve
LI 4 (r)	He- Gu (Union Valley)	In the depression between the 1 st and 2 nd metacarpal bones, approximately in the middle of the 2 nd metacarpal bone on the radial side	Source point, removes obstructions from the channel, activates Qi and Blood. Homeostatic point.	Radial Nerve
BL 11(b)	Da-Zhu (Big Shuttle)	In the depression 1,5 cun lateral to the caudal border of the spinous process of the 1 st thoracic vertebra, midway of the spinous process to the medial border of the scapula	Influential (Hui-) point for Bone, increases Qi, nourishes Blood, soothes the Sinews, and eases pain.	Cervico-thoracic Spinal nerves
BL 23(b)	Shen-Shu (Kidney Assosiation point)	In the depression 1,5 cun lateral to the caudal border of the spinous process of the 13 th thoracic vertebra.	Kidney association (Shu) point. Tonifies Kidney Yin. Strengthens the brain, bone, and marrow. Benefits the Mind and strengthens the caudal back and stifle. Dispels and transforms Dampness.	T13- L2 Spinal nerves
SP 6 (r)	San Yin Jiao	In the depression 3 cun proximal to the medial	Benefits the Spleen functions of transformation and	Tibial Nerve

	(Meeting of the Foot 3 Yin)	malleolus of the tibia, on the caudal border of the tibia.	transportation. Transforms Dampness and Damp Heat. Tonifies Qi, Blood and Yin. Harmonizes the Liver and spreads Liver Qi. Tonifies the Kidney. Moves and nourishes Blood and stops pain. Distal point.	
SP 9 (l)	Yin-Ling-Quan (Yin Mound Spring)	In the depression just ventral to the medial condyle of the tibia, between it and the gastrocnemius m.	He- Sea and Water point. Benefits the Spleen function of transportation and transformation. Dispels Dampness and Heat. Local point for the stifle.	Saphenous Nerve
ST 36 (r)	Hou-San- Li (Rear Three Miles).	In the depression just cranialateral to the tibial crest, approximately in the middle of the cranial tibialis muscle.	He- sea point and Earth point. General weakness and Lethargy. Benefits the Spleen function of transportation and transformation. Benefits the hind limbs, especially the stifle. Helps with hind limb pain and weakness, also an aid for metabolic and endocrine diseases. Tonifies Qi	Deep Peroneal & Saphenous Nerves
GV 14	Da- Zhui (Big Vertebra)	In the depression on the midline between the dorsal spinous processes of the 7 th cervical and 1 st thoracic vertebrae.	Meeting point for all yang channels. Sea of Qi point. Dispels Wind Heat, calms the Shen	C6 spinal nerve
LI 10 (r)	Qian-San- Li (Front Three Miles).	In the depression in the muscular groove between the extensor carpi radialis and the common digital extensor mm. of the forelimb, 2 cun distal to the transverse cubital crease.	Clears obstructions in the channel. Powerful point for regulating and tonifying Qi and Blood, like ST 36. Clears Heat. Local point for the elbow.	Radial Nerve
Lu 5 (r)	Che- Ze (Cubit Marsh)	In the depression on the transverse cubital crease, just lateral to the tendon of the biceps brachii m.	Water, Sedation and He-Sea point. Relaxes the Sinews and tendons. Local point	Radial Nerve
TH 10 (r)	Tian-Jing (Heavenly Well)	In the depression just proximal to the olecranon, on the midline	Earth, Sedation and He-Sea point. Clears Heat. Resolves Dampness and Phlegm. Relaxes the Sinew and tendons.	Ulnar Nerve

			Regulates Qi. Pain in the elbow and removes stagnation along the channel.	
LI 11 (l)	Qu- Chi (Pool at the Bend)	In the depression at the transverse cubital crease, just cranial to the lateral epicondyle of the humerus, between the extensor carpi radialis and the common digital extensor mm.	Earth, Tonification and He-sea point. Clears Heat and local pain in the elbow, resolves Dampness. Benefits the Sinews and joints.	Radial Nerve
SP 10 (l)	Xue-Hai, Sea of Blood	In the depression 2 cun proximal to the cranio-medial border of the patella, on the bulge of the cranial portion of the sartorius m. when the stifle is flexed	Cools, strengthens, and nourishes Blood. Eliminates blood stasis. Local point for stifle pain and stiffness	Saphenous Nerve
HT 3 (l)	Shao-Hai (Lesser Sea)	In the depression on the medial side of the elbow, between the end of the transverse cubital crease and the medial epicondyle of the humerus.	He- Sea and Water point. Removes obstructions from the channel, calms the mind, clears Heat, and transforms Phlegm.	Ulnar Nerve
BL 17 (b)	Ge- Shu (Diaphragm Association point)	In the depression 1,5 cun lateral to the caudal border of the spinous process of the 7 th thoracic vertebra.	Association (Shu) point for the Diaphragm. Influential (Hui) point for the Blood. Regulates Qi circulation, tonifies Blood. Cools Blood. Benefits the Sinews.	T5- 7 Spinal Nerves
GB 39 (r)	Xuan-Zhong (Hanging Bell)	In the depression 3 cun proximal to the tip of the lateral malleolus, between the caudal border of the fibula and the tendons of the peroneus longus and brevis mm.	Influential (Hui) point for marrow to help with Kidney Jing. It benefits and promotes the essence. Nourishes the Marrow and Bones.	Peroneal (Fibular) Nerve
LIV 3 (b)	Tai-Chong (Bigger Penetrating)	In the depression between the 2 nd and 3 rd metatarsal bones, at the level of the junction of their heads and shaft, just proximal to their associated metatarsophalangeal joints.	Moves Qi, promotes the smooth flow of LIV Qi + LI 4 = "Four Gates" ensures the passage of Qi and Blood throughout the body, Calms the Mind	Dep Peroneal (Fibular) nerve

*(l) left, (r) right, (b) bilaterally

DISCUSSION

The Western diagnoses of elbow dysplasia, total ACL rupture and Hypothyroidism were straight forward and based on radiographs, clinical signs and examination, and blood work.

There were many symptoms for the Eastern diagnosis of Kidney Jing deficiency.

The main sign leading to the inherited weak Kidney Essence fell into place from Tessa's history: the smallest puppy in the litter that was sceptical and easily frightened. Then the coat colour change gives a big hint about the weakened Jing. The deep, weak pulse is a sign for a deficient problem too.

The consequences or manifestations that followed the diagnosis of Kidney Jing deficiency or the root of the disbalance were many. Blood deficiency, General Qi Deficiency, Spleen Qi deficiency, Kidney Blood deficiency and Bony Bi. All those can be logically explained by the interaction in the Five Element Theory/ the Five Phases Theory.

Lack of Jing essence fails to nourish the Kidney Yin and leads to dryness. This is manifested here in dry skin and Blood deficiency or failing to keep the Blood strong since it is made of cells and yin fluid plasma. Kidney Yin deficiency means lack of fluids and leads to malnourished bones, joints, and ligaments.

Kidney Yang as the other part of the Kidney Jing Essence is also deficient in this case leading to the warm- seeking behaviour, weak pulse, hormonal imbalance (thyroid hormones are affected by kidney yang and the TH in general), and arthritis. The yang is warming and activating, and very closely related to Qi. If the Kidney Yang is deficient, it allows coldness to seep into the core of the body right into the bones.

If the yang of the kidney is not active, the fluid in the bone marrow and around the joints can become stagnant, leaving only some areas lubricated. Where there is stagnation, there is pain and there can be areas of unnatural calcification.

The swollen, bigger, and warmer elbow was due to Heat that together with Dampness forms Phlegm pathogenic factor leading to obstruction, stagnation of Qi and Blood and severe pain or a Bony Bi syndrome.

Tessa did not receive good nutrition from her mother in the early stages of her development both pre- and postnatal. The lack of essential micro- and/ or macronutrients can easily lead to retardation in bones and tendons.

According to the Sheng cycle or the cycle of creation or production the Wood element/ phase (Liver) is influenced because it is the son of Water (Kidney). According to the Ko cycle, the one of control and destruction, the Wood restrains Earth, which explains the Spleen signs.¹

Thus, everything is interconnected and if one element/ phase is in deficiency, there are consequences and manifestations in other elements/ phases.

The Liver stores blood at night and nourishes the tendons and ligaments.

The Hypothyroidism leads us also to a Spleen deficiency problem and can be explained by the Qi deficiency and Yuan/ Original Qi deficiency.

“There are three types of hypothyroidism: liver Qi stagnation, Qi/Yin deficiency, and Yuan Qi deficiency.”²

The TCM therapy main goals were to treat the root of the problem which in this case is the Kidney Qi deficiency. The treatment for the Jing deficiency included building up and tonifying Qi and Blood; moving Qi- blood to resolve stagnation; nourishing Yin, nourishing the bones, and moistening the sinews.

The Spleen deficiency also needed to be addressed. If there is not enough Qi, then we need to make it or get it from somewhere. The main Qi makers are the Lungs and the Spleen. The Spleen's main functions of transportation and transformation also needs to be tonified.

The Bony Bi syndrome should be treated with local and distal points to help eliminate the Damp- Heat and disperse it. This should lead to release of the painful obstruction. Heat plus Damp form Phlegm which is the most difficult pathogenic factor to expel and get rid of due to its texture and chronic character.

By tonifying, stimulating and promoting the local circulation of Qi and Blood one can unblock the channels because pain is an obstruction to the circulation of Qi in the channels or Painful Obstructive Syndrome. Around the elbow joint like in all joints on the extremities, we have 6 main meridians in total or 3 Yin (LU, PC, HT) and 3 Yang (TH, SI, LI) and in this case they all were affected into a different degree but mostly the LI.

The TCM treatment should support the joints, tendons, and ligaments and improve the circulation, the flow of Qi and Xue; to prevent further damage, like the continuous formation of new tissue and the calcification of the arthritic joint. All this should relieve the pain and by thus improving mobility.

The points I used were carefully chosen to try to keep to the balance method as much as possible and not overload the body with too much information.

I thought that 4 needles would be a good start, but it did not help enough with the pain and the limping. I had 2 Yin points: KI 3 (for Qi, Blood, and fluids) + PC 3(local mirroring point) even though both on the left side and 2 Yang points: GB 34 (for strengthening the tendons, Hui point for tendons and sinews) + LI 4 (Source point, activates Qi and Blood) even though both on the right side. Optimally they should have been distributed or crossed on both left and right side for a better balance effect.

The second session did not have the desired effect either on the limping even though I added important influential and very powerful points, like the GV 14 which is one of the 4 Sea of Qi points, BL 23 for Kidney tonification and support, and SP 6, SP 9 to tonify the Spleen functions and dispel Damp Heat, also St 36 for Qi.

The 3rd time I decided that I needed to address the manifestation and not only the root of the disease. With other words treat locally the most painful symptom/ manifestation. And it was after this session that the owner finally reported the so desired mobility improvement.

To my opinion local treatment was crucial here. The local points I used were LI 10, TH 10 and LU 5 on the right side and LI 11 + HT 3 on the left. It first felt like too many needles and not that well balanced, but it did help in releasing the obstruction, clearing Heat and improved the flow of Qi and Blood.

I also added BL 11 as a Hui point for Bones to soothe the Sinews and ease the pain. The SP 10 was mainly for cooling, strengthening and nourishing Blood and as a local point for the left stifle pain and stiffness.

The new points for the 4th session were BL 17 mainly because it still was an Ah Shi point and to help with the Blood Deficiency, and GB 39 to address the essence.

In general, I tried to keep my focus at the Kidney Jing deficiency. On the other hand, I now see that some symptoms and issues are more important and urgent than treating the actual disease from the start.

Maciocia describes that the treatment principles according to the root and manifestation can be divided into:

- Treat the Root only
- Treat both the Root and the Manifestation
- Treat the Manifestation first and the Root later
- Multiple Roots and Manifestations ³

In this case I could have started with more aggressive and braver local treatment because the Manifestation was and will always be severe. Thus, to ease the dog and bring pain relief from

the beginning. Later when this was achieved and the patient more comfortable and stable, I could have addressed the Root of the disease.

My desire was to avoid painful points in order build a good relationship with both owner and patient from the start but sometimes it is not possible to avoid more pain and one needs to prioritize. With other words choose the less evil or a few seconds/ minutes of pain and discomfort instead of constant chronic pain and stiffness. This is what I managed to convey to the owner and the compliance was even better after, and so she was very helpful in restraining and calming her doggy. In the future whenever I have a similar patient, I will keep this in mind.

Tessa`s response to treatment was gradual but very good and especially visible after the 3rd session. She was of course far from cured or in perfect health but the improvement in ambulation was over 50 % - 60 % and it was obvious. Having in mind what she has been through, the chronic degenerative joint problem and all procedures done previously, it was reasonable and realistic to be pleased and content with the results.

In addition, the alternative treatment possibilities like total elbow arthroplasty/ elbow replacement (which had to be done in another country) or amputating the limb and a following protease, was not something the owner could afford or put her pet through again. Besides, the other joint showed also signs of elbow dysplasia radiographically even though not clinically yet. This makes the investment in such comprehensive surgeries, not very smart or promising. The NSIADs did not help, and the owner said that the thought of euthanasia was there for the past year or so. Owner had even planed some of the details and was starting to prepare herself for this. She didn`t want Tessa to suffer but unfortunately Tessa`s life was indeed painful, and the quality of life was low.

The effectiveness of the acupuncture treatment was overwhelming the owner with joy, and according to her Tessa lives her second life now.

To see this poor innocent dog, suffering from chronic pain, more active, limping less and happier was very rewarding and motivating to ease similar conditions. The so called “hopeless” cases. The only disadvantage is that those chronic degenerative conditions will require continuous treatments. And again, considering the other treatment options, continuous treatments are not the biggest challenge most owners must face.

“Acupuncture is not a cure to arthritis but a valid treatment to help alleviate pain and improve the patient`s quality of life.”⁴

In conclusion this was a rewarding case with a positive outcome. It gave me a nice and different perspective of what I thought acupuncture in practice is supposed to be. There is no “cookbook” for treating a patient with acupuncture. It is so unique and individual that no one could ever be truly prepared. One should rather listen to that inner voice or one`s instincts and see what happens. In the future I am going to follow my intuition more as a veterinary acupuncturist.

It has been scientifically proven, even though there is still a lot unknown, that acupuncture can result in pain relief. Without a doubt acupuncture is mostly used to treat painful conditions. It is a very comprehensive subject that is impossible to be covered in this case rapport. I am just going to list the big four groups and subgroups of all the mechanisms of function without going into details, to try to give a complete overview:

1. Local tissue effects, including:

- increased blood flow
- local analgesia
- connective tissue defects
- inflammation
- cytokine release and
- myofascial trigger point inactivation.

2. Segmental effects including:

- analgesia and
- autonomic modulation

3. General effects:

- descending analgesia and
- central regulation

4. Mechanisms not known yet

“We have the Chinese to thank for the first scientific investigations of acupuncture and the discovery that acupuncture operates through the nervous system. One crucial experiment in the early days of acupuncture research showed that acupuncture needles had no effect if they were inserted into area that had been anaesthetized by injection of a local anaesthetic. Another early trial showed that acupuncture generates nerve action potentials that can be detected in the nerve trunks leading away from the area being treated. The great body of research that has accumulated to date leaves little doubt that the majority of acupuncture`s effects at different sites of the body are the result of stimulating high-threshold nerves in deep tissue.”⁵

“The effects of acupuncture cannot be explained by a single mechanism. What starts as a local event spreads by way of the nervous system to affect most of the body. Ultimately, the nervous system effects create changes in the endocrine and immune system. While the knowledge and theory behind the application of acupuncture in a clinical setting may be derived from antiquity, it has been modified and improved over the years. Science is beginning to catch up and develop modern explanations for this ancient medical art. While there are likely to remain areas of traditional Chinese medicine that presently appear not to have been proven scientifically, it may only be that we have not develop the means to evaluate them. Wisdom comes slowly in science.

Acupuncture has reached an all-time high for popularity and acceptance, but there is still a long way to go in defining how to integrate acupuncture with modern Western medicine, while they can exist together for the mutual benefit of the patient, some Western drugs can alter the response to acupuncture and vice versa. Traditional Chinese medical theory and pattern recognition must evolve and be characterized in terms of Western medical theory so that a unified theory can evolve. At the same time, the individualized patient care provided by TCM approaches should be preserved as acupuncture becomes part of mainstream Western medical care.”⁶

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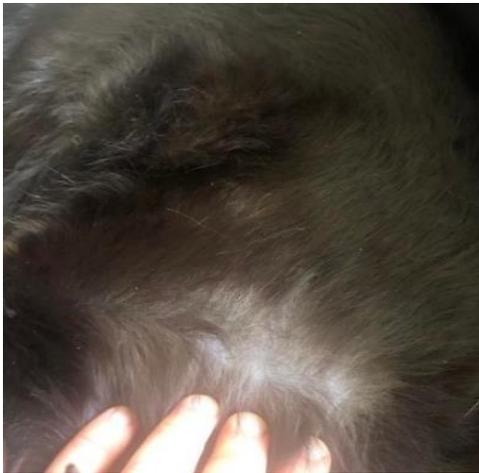
ADDENDUM



Tessa`s alopecia on the Ren Mai, January 2021



Her radiographs taken in February this year:



The coat colour change, photo form March 2022



Tessa`s tongue, photo form April 2022

Chinese herb formulas form Natural care that I prescribed for Tessa:

1. Easy Walker (Du huo ji sheng tang by NC) with the following composition:
Angelica (Du huo), Loranthus (Sang ji sheng), Gentiana (Qin jiao), Siler (Fang feng),
Cinnamon (Gui Zhi), Angelica (Dang gui), Peony (Bai shao yao), Cindium (Chuan
xiong), Rehmanina (Shu di huang), Eucomina (Du Zhong), Archyrnthes (Niu xi),
Ginseng (Ren shen), Hoelen (FU ling), Licorice (Gan cao).
2. Strong Gentlemen (Liu Wei Di Huang Wan by NV) with the following composition:
Rehmannia (Shu di huang), Cornus (Shan zhu yu), Dioscorea (Shan yao), Hoeien
(Fung liing), Mautan (Mu dan pi), Alisma (Ze xie).