TREATING ANEMIA
AND OTHER CONSIDERATIONS

Herbs and Medicinal Foods

Purpose and Goals
Make it Easy to Organize Symptoms, Diagnose and Treat Using TCM Principles
Understand the Underlying Organ Dysfunctions
Discover the Appropriate Combinations of Herbs and Foods To Administer
Review of Conventional Medicine

Anemia and Other Considerations

- REVIEW OF DISEASES AND CAUSATIVE FACTORS
- TCM RELEVANCE
- WHERE TO BEGIN
- DIAGNOSIS BASED UPON
  - TESTS
  - TCM
  - SYMPTOMS / PULSE /TONGUE
  - HISTORY
  - ORGAN DYSFUNCTIONS
- TREATMENT
  - INDIVIDUAL HERBS
  - FORMULAS AND COMBINATIONS
  - FOODS & NUTRACEUTICALS

QUESTIONS
Common Problems Seen In Veterinary Practice Related with Anemia

**Canine**
- Blood Loss (Trauma)
- Hemolytic Diseases (Inherited)
- Chronic Renal Failure
- Cancer / Lymphoma
- Parasitism
- Dietary Deficiencies
- Hypothyroidism
- Bone Marrow Depression
- Drug, Heavy Metal and Chemical Toxicities
- Immune Mediated (AIHA)
- Liver Disease

**Feline**
- Bartonella felis / FIV
- FeLV / Retroviruses
- Hemolytic (Babesia)
- Chronic Renal Failure
- Cancer / Lymphoma
- Intestinal Parasitism
- Dietary Deficiencies
- Hyperthyroidism
- Hypothyroidism
- Hepatitis
- Hepatic Lipidosis
- Drug, Heavy Metal and Chemical Toxicities

What's Going On?

- Blood Loss / Volume
- Hemorrhage
- Blood Hemolysis
- Regenerative RBC process
- Non-regenerative RBC process (chronic diseases: liver and kidney failure, cancer, skin, gingivitis, abscesses, iron deficiency, shortened RBC life span, depressed bone marrow)
- Blood Stagnation
- Thrombocytopenia
  - Viral, chemicals, drugs, immune mediated, breed disorders (cavalier King Charles Spaniels, Glanzmann's thrombasthenia (Great Pyrenees, Otterhound), thrombopathia (Spitz, Basset), cyclic hematopoiesis (Grey Collie), dense granule defect American Cocker, platelet disorders (Von Willbrands)
- Bone Marrow Suppression (drugs, chemicals, radiation, cancers)

What's Going On?

**What Causes Non-Regenerative Anemia?**

- Toxins
- Phenylbutazone
- Estrogen
- Copper
- Chloramphenicol
- Meflofenamic acid
- Trimethoprim-sulfadiazine
- Methimazole
- Griseofulvin
- Anti-Seizure drugs
- Chemotherapeutic drugs
- FeLV, viruses
- Ticks
- Ehrlichia canis, Babesia
- Hypothyroidism
- Hypoaddrenocorticism
- Immune Mediated Diseases
- Cancers
Immune Mediated Hemolytic Anemia

“Triggers”

- Vaccines
- Infections (viral, bacterial)
- Neoplasia (leukemia, lymphoma, solid tumors)
- Immune Disorders
- Babesiosis
- Hemobartonemia
- Chronic Infections
- Pyometra
- Pyelonephritis
- Diagnospondylitis

Drug Toxicity
- Ivermectin
- Sulfa drugs
- Cephalosporins
- Penicillin
- Propylthiouracil
- Methimazole
- Procainamide
- Anticoagulants
- Nonsteroidal
- Zinc, copper
- Vit K 3
- Hypothyroidism
- Immuno-Deficiencies
- Systemic Lupus E.
- Genetic

Where Do Begin?

- Where are the Deficiencies?
- Where are the Excesses?
- What Organs Need Support?
- What are the Precipitating and Causative Factors

Where Do Begin?

- Examination / History
  - Pulse / Tongue
- Laboratory Testing
  - CBC
  - Total Health (liver, kidney, pancreas, minerals etc.)
  - Complete Thyroid Panel
  - Van Willibrands
  - Comb’s Test
- Ultrasound
- Radiographs
- What are the Causative Factors
Where Do Begin?

- Where are the Deficiencies
  - Inherited
  - Dietary
  - Chronic organ diseases
  - Parasites
  - Thrombocytopenia
  - Blood Loss

- Where are the Excesses
  - Dietary
  - Chemical, drug, radiation
  - Parasites (blood and intestinal)
  - Blood Stagnation
  - Parasitic
  - Liver Disease / Qi Stagnation
  - Polyneuritis

TCM look at Anemia: Definitions

**“Deficiencies”**
- Refers to Organ Dysfunctions
- Nutritional
- Genetic (Jing)
- Qi / Energy
- Qi / Immune System
- Blood / Anemia
- Symptoms:
  - Pale tongue, weak pulse, watery diarrhea, low temperature, dry hair and skin, crumbly nails, hypothyroidism, chronic renal disease

**“Excess and Stagnation”**
- Nutritional / rancid fat, chemicals, heat processed
- Energy Obstruction / Stagnant Qi
- Causes Inflammation in the Liver which affects the Spleen adversely will result in Deficiencies of the SP and BLOOD
- Stagnant Blood / creates inflammation and necrosis = sharp pain
- Blood vessel Obstruction with dead, clotted or spent RBC’s, or phlebitis
  - Symptoms: Purplish tongue, fever, inflammation, constipation, or inflammatory diarrhea.

TCM Understanding

**Excess vs. Deficiency**

**Diseases of Deficiency**
- Blood Loss (Trauma)
- Chronic Renal Failure
- Dietary Deficiencies
- Hypothyroidism
- Bone Marrow Depression
- Paralysis
- Cardiomegaly
- Hereditary Diseases (Inherited)
- Chronic GI problems
- DEFICIENT BLOOD, LIVER, KIDNEY, HEART, SPLEEN patterns

**Diseases of Excess**
- Drug, Heavy Metal and Chemical Toxicities
- Liver Disease
- Hypertension
- Parasitic
- Paraneoplastic

**EXCESS** Inflammation, pathogenic invasion (heat and toxicity), fibrosis and cirrhosis, Blood Stagnation
We have to consider more than the symptom: Anemia

- Deficient Blood (in humans) usually occurs with other Deficiencies such as Qi / Energy
  - Heart Spleen Deficiency
  - Liver Kidney Yin Deficiency
  - Spleen Kidney Yang Deficiency

- Blood Tonic herbs need to be taken with Digestive support herbs (Spleen/Stomach Tonics)
- Blood Tonic Herbs are commonly combined with Yin Tonics (to support LIV and KI unless there is already too much "dampness" and the Spleen Qi is deficient)

Where Do Begin? TCM BLOOD?

- Nourishment & Moistening

- Role of Blood: More than this:
  - RBCs, platelets, and WBCs, feeding oxygen and glucose to cells

- Distribution of Vital substances:
  - Ying (nutrients),
  - Wei (immune system energy)
  - Shen Jing (genes, vitality)
  - Jin Ye (body fluids)

Blood Loss and Hemorrhage

- Trauma
- Chronic Parasitism (blood and intestinal)
- Intestinal Bleeding
- Hemolysis
- Blood Deficiency (Deficient BLOOD syndrome)

- Herbs That Decrease Hemorrhage and Increase Blood Production
Treatment: Blood Deficiency

- **Nourish Qi and Blood**
  - Functional Nutritional Intervention
  - Food
  - Herbs
- **Support Blood Forming Organs** (spleen, kidney, bone marrow)
  - Kidney Qi (kidney and bone marrow)
  - Spleen Qi (stimulate red blood cell formation)
- **Support Digestion and Assimilation** (spleen, pancreas, liver, gall bladder)
  - SP/PANC Qi
  - ST Yang
  - Liver Yin / Qi

**Symptoms**
- Fatigue, irritability
- Dry eyes, dry skin, loss of energy
- Thin or falling hair, pricking itch
- Palpitations
- Pulse weak, thin, irregular
- Pale mucous membranes, tongue
- Numbness in legs and feet
- Easy bruising, muscle cramps
- Restlessness, insomnia
- Hypothyroidism
- HypoAdrenalcorrism

---

Treating Blood Deficiency (anemia)
Creating a Treatment Strategy

- **Nourish Deficiency**
  - Blood
  - Spleen
  - KI ? LIV?
- **Improve Digestion**
  - **Treatment would include**
    - Special Foods / Special Diet
    - Herbs, and spices
    - Acupuncture

---

TCM Understanding

- **Look for Underlying Deficiencies and Treat**
  - Blood Deficiency
  - Spleen Qi Deficiency
  - Liver Yin Deficiency
  - Kidney Qi and Yin
  - Deficient Diet
- **Mollify Sources of Excess** (drugs, chemicals, poor diet)
- **Treat Excess**
  - Blood Stagnation / SP
  - Liver Heat / Qi Stagnation
  - SP Dampness
  - Diet
**Where Do Begin?**

- **Spleen**
  - Rules the Quality of Blood and keeps it in the blood vessels
  - Nutrition / Assimilation
  - Nourishes Qi and Blood
  - SP Qi Deficiency : chronic food intolerance, appetite problems, vomiting and diarrhea
  - Cardiomyopathy

- **Liver**
  - Stores the Blood
  - Disharmonies
    - Liver Qi Stagnation / Liver Invading Spleen
    - Liver Yin Deficiency

**Where Do Begin?**

**How does TCM view the Functions?**

- **Kidneys**
  - KI Qi Creates the Blood

- **Heart**
  - Rules the blood
  - Smooth, harmonious, continuous circulation

- **Blood**
  - **Mother of Qi**

**Where to Begin?**

<table>
<thead>
<tr>
<th>Deficient Spleen</th>
<th>Deficient Heart Blood / Yin</th>
<th>Kidney Deficiency</th>
<th>Blood Deficiency</th>
<th>Blood Loss / Menorrhage</th>
<th>Uter Qi Stagnation</th>
<th>Liver Yin Deficiency</th>
<th>Weak Poor Digestion Assimilation</th>
<th>Deficient Spleen</th>
</tr>
</thead>
</table>
Excess or Deficiency?

- Allergies, "hot spots" in skin when weather is warm and damp
- Intermittent acute ear infections
- Large appetite, occasional loose stools, eats "natural" dry food and some meats, rice, and vegetables from home
- Hypothyroid

Koa 6 Yr  Labrador

Multiple Metastasis Chronic Mast Cell Tumors

Rex 12 Yr  Cattle Healer

Excess or Deficiency?

Tonics and Tonification

- Support Organ Functions
  - UV/KI/LI/HT/SP
- Improve Nutrition
- Improve Adaptation to Stress
- Improve Immunity
- Help generate more Blood, Qi or Yin

- Look For What is Deficient:
  - Yin / Yang
  - Qi / Blood

Supplement Support
### Tang Kuei 4 Combination Si Wu Wang
- Base Formula for most TCM Blood Tonic Formulas
- To Treat Deficient Blood Patterns
- Tang Kuei
- Peonia
- Rehmannia
- Ligusticum

### Tang Kuei Angelica sinensis
- Regulates Menstruation
- Blood Deficiency
- Lubricates GI & Uterus
- Protects Liver & Heart
- Sweet, spicy, bitter, warm
- Improves circulation
- Yin Tonic/ Moisturizing
- Supreme Woman’s Tonic
  - Improves skin Quality
  - Nourishes Blood and Womb

### Rehmannia glutinosa Shu Di Huang
- Sweet, slightly warm
- Tonifies Blood
  - Deficient Blood Patterns
- Nourishes Yin
  - Moisturizing
  - Supports Xi Yin (night sweats, restlessness, dizziness, loss of hearing)
  - Polydipsia, polyuria

**Chinese Fox Glove**
**Rdx Peonia lactiflora**  
Bai Shao

- Bitter, sour, cool
- Nourishes the Liver
  - Sedates & alleviates pain
  - Liver Qi stagnation
- Balances Yin, harmonizes the LIV & SP
- Nourishes the Blood
  - Deficient Blood Patterns

**Rdx Ligusticum wallichii**  
Chuan Xiong

- Spicy, warm
- Invigorates Blood
  - Treats and prevents Stagnant Blood
- Promotes Circulation of Qi
  - Treats and prevents Stagnant Qi Patterns (LIV)
- Dispels “wind” (headaches and dizziness)

**Polygonatum multiflori**  
He Wu Shou

- Nourishes Blood
  - Deficient Blood Patterns
  - Tones Liver & Kidneys
  - Deficient Yin Patterns
  - Retains Essence
- Detoxifies (“fire poison” abscesses, sores, hot spots)
- Moistens Intestines
- Dispels “wind” from skin (rashes)
Herbs Used to Stop Hemorrhages

- **Hemostatics**
  - Folium Callicarpa pedunculata (Zi Zhu)
  - Biota orientalis Ce Bai Ye (Xian e Cao)
  - Agrimonia pilosa japonica (Xian e Cao)
  - Cow bone
  - Animal Gelatin (donkey skin)
  - *Panax pseudoginseng* (Yunnan Paiyao)

---

Tang Kuei / Gelatin Combination

- Tang Kuei
- Peonia
- Rehmanxia
- Ligusticum
- E Jiao
- Artemesia Al Ye
- Post partum bleeding
- Blood deficiency causing restless fetus
- Weak low back pain
- Cold Abdominal Pain
- Post Op
- Hookworms and other blood-sucking parasites: babesia, erlichia, etc.

---

Hemostatic Herbs

- *Equis asinus* E Jiao
  - skin
- Nourishes the Blood
- Stops Bleeding
- Nourishes Yin
- Moisturizes Lungs
- *Panax pseudoginseng* (Yunnan Paiyao)
Artemesia argyi / Ai Ye

- Disperse Cold
- Hemostatic
- Resolves Dampness

Artemesia annua Qing Hao

- Treats and Prevents Malaria

Formulas for Bleeding & Anemia

- “TanKwe Gin” (Patent Medicine)
  - Tang Kuei
  - Paeonia
  - Ligusticum
  - Rehmannia
  - Donkey Skin
  - Plus Spikenziel Tonic
  - Codonopsis
  - Astragalus
  - Tonic
  - Licorice
  - Sugar

- Artemesia & Gelatin Combination
  - Chiung Kuei Chiao Ai Tang
  - Tang Kuei
  - Paeonia
  - Ligusticum
  - Rehmannia
  - Donkey Skin
  - Artemesia

- Liver Based B-complex syrup with iron
- Spirulina
Blood Transfusions?

- Normal Life span of RBCs
- 100 to 120 days  DOG
- 70 to 78 days  CAT

Stagnant Blood / Stagnant Qi

- Need to use herbs that “Invigorate the Blood”
  - Angelica sinensis, Ligusticum wallichii, Carthamus tinctorius.
  - Paeonia rubra, flos Rosa chinensis, Salvia miltiorrhiza

Medicinal Foods: Functional Nutritional Intervention

- Tonify Spleen
  - Sweet potato
  - Rice
  - Alfalfa (SP/ST, Drains Damp, benefits digestion)
  - Barley
  - Buckwheat
  - Chicken Gizzards
  - Eggplant
  - Kelp
  - Papaya
  - Squash
  - Tremella, Shiitake

- Improve Digestion and Assimilation
  - Ginger
  - Licorice

Medicinal Foods: Functional Nutritional Intervention

- Proteins
  - Chicken (SP/ST, warming)
  - Beef Liver (supports Yang/ LIV)
  - Chicken Liver (KI/LIV, warming)
  - Chicken Gizzards (SP/ST)
  - Pork Liver (moisturizing)
  - Lamb Kidneys (Yang/ KI, warming)
  - Pork Kidneys (for dryness)
  - Lamb (SP/KI, warming)
  - Beef (SP/ST)
  - Duck (LU/ KI)
  - Chicken eggs

- Starches & Carbs
  - Sweet Potato (SP/KI, warming)
  - Squash (SP/ST, warming)
  - Sweet Potato (K1, warming)
  - Barley (SP/ST, cooling)
  - Buckwheat (SP/ST, cooling)
  - Rice (SP/ST)
  - Raw Brown Sugar (SP/LIV, warming)
  - Coconut meat and milk (Blood Stagnation)

- Vegetables and Plants
  - Celery (ST. LIV, cooling)
  - Eggplant (ST/SP , cooling)
  - Spinach (treats YIN Def, cooling, hemostatic)
  - Nori / Kelp  (LU), Spirulina (LIV, cooling)
  - Cordyceps Mushroom, other mushrooms (SP/ST, LU, KI, LIV)

- Avoid brassica : kale, broccoli / also garlic
Medicinal Foods: Functional Nutritional Intervention

**NOURISH BLOOD TCM**

- **Fruits**
  - Ceylon Cherry Hill Gooseberry
  - Mulberry (Morus rubra and M. alba)
  - Red Dates (Ziziphus jujuba)
  - Lotus Seed and Root
  - Lycium barbarum

- **Supportive Herbs**
  - Yellow Dock (LIV)
  - Chickweed (SP/Yin)
  - Alfalfa
  - Safflower
  - Red Raspberry
  - Red Clover
  - Chlorella

- **Blood Stagnation**
  - Alfalfa
  - Safflower
  - Red Raspberry
  - Red Clover
  - Chlorella

- **Chickweed Stellaria media**
  - Sweet, cool, moist
  - Classified as a Restorative
  - Meridians: Lung, Spleen, Stomach, SP/SP
  - Functions:
    1. Yin tonic, moistens dryness, generates fluids and clears Deficiency Heat
    2. Spleen Qi tonic-treats blood deficiency, weakness, edema, hypotension
    3. Calms heat, treats constipation
    4. Clears heat and toxins when applied topically
Medicine Herb and Food

- **Mulberry** *(Morus alba)*
  - Sang Shen
  - Nourishes Blood and Yin
  - Anti-Cancer

Medicine Herb & Food

- **Lycium barbarum**
  - Gou Qi Zi
  - Tonifies Spleen Qi
  - Tonifies LIV & KI
  - Nourishes Blood & Yin

Medicinal Foods: Functional Nutritional Intervention

- **Iron**
  - Kelp
  - Brewer's Yeast
  - Black Strap Molasses
  - Wheat Bran
  - Pumpkin and Squash Seeds
  - Black Eyed Peas
  - Beef Liver
  - Broccoli, kale, cabbage, asparagus
  - Beef Liver

- **Choline**
  - Brewer's Yeast
  - Black Eye Peas
  - Brown Rice Germ
  - Liver

- **Folic Acid**
  - Brewer's Yeast
  - Black Eye Peas
  - Brown Rice Germ
  - Liver

- **Vitamin K**
  - Turnip greens
  - Broccoli, kale, cabbage, asparagus
  - Beef Liver
  - Spinach, watercress
  - Butter, cheese
  - Oats

- **Vitamin B12**
  - Lamb or Beef Liver
  - Laxer
  - Chicken liver
  - Black Eye Peas
  - Spirulina
Spirulina *Arthrospira platensis*

- Highest protein content of all edible food: 45 – 60%
- Chlorophyll, phytoestrogens, carotenoids, gamma linolenic acid, glycolipids
- Sulfolipids, Vit. C, E, B12, selenium
- Anti-inflammatory, Cox-2 inhibitor, prevents liver fibrosis and cirrhosis
- Increase Mean Hemoglobin levels
- Decreases Heavy Metal Absorption

---

**Supplemental Foods Easily administered when appetite is poor…..**

**LIVER SHAKE** Mix in a blender…. liquify the following ingredients:

- 1 cup Raw beef liver (local, grass fed or organic ….if possible)
- 1/2 cup fresh carrot juice
- 1 raw egg yolk
- 1 cup of water
- 1 teaspoon of spirulina
- 2 tablespoon of brewers or nutritional yeast

Give 20 cc 6 times daily

---

**Chronic Disease Conditions**

Spleen/Liver/Heart/Kidney Disharmonies

- Chronic Degenerative Disease processes with Anemia
- Chronic Blood Failure
- Carcinosis
- Diabetes, Celiacs
- Malabsorption, IBD
- Auto immune mediated Hemolytic Anemia
- Hypothyroidism
- Liver cirrhosis / Siderosis
- Inherited Blood diseases
- Blood parasites: rickettsia, babesia, hemobartonella
- Beta thrones, Fe lat (bone marrow suppression)
- Chronic drug and chemical exposure
- Hypothyroidism

- Herbs That Support Organ Function and Increase Blood Production
Inherited Blood Disharmonies

- Basenji, beagle, West highland white, cairn terrier, miniature poodle, dachshund, Abyssinian cat, English Springer, cocker spaniels, cocker X (pyruvate kinase deficiency / phosphofructokinase deficiency)
- Alaskan malamute, miniature schnauzer / stomatocytosis
- English Springer, Abyssinian, Somali cats / increased osmotic fragility
- Siamese / porphyria
- Akita, Shiba Inu / High potassium RBC
- Von Willebrand
  - Doberman Pinscher
  - Shetland Sheepdog
  - German Shepherd Dog
  - Standard Poodle

Drugs and Chemicals/chronic exposure
Anemia

- IMHA
  - Sulfonamides, cephalosporin, penicillin, propyluracil, methimazole, procainamide, vaccines
- Oxidative Damage Induced Hemolytic Anemia
  - Acetaminophen
  - Bensacrine
  - Phenacylbenzine
  - Methylen blue
  - Phenacetin
  - VITK 3
  - DL Methylathine
  - Naphthalene
  - Zinc, Cu
  - Onions, garlic
  - Radiation

5 Elements Yin Organs

- Heart
- Liver
  \[<\]
  \[>\]
  Spleen/
  Pancreas
  \[<\]
  Kidney
  Lung
TCM Conditions (Disharmonies) associated with Anemia according to Henry C. Lu PhD

Consider Energetic Organ Relationships

Symptom Patterns
- Heart Spleen Deficiency
  - Qi & Blood
- Liver Kidney Yin Deficiency
- Spleen Kidney Yang Deficiency
- Excess Dampness
  - Distressing the Spleen

What Does the Spleen Do? Spleen Disharmonies with Blood, KI, LIV & HT

Supportive Herbs

Spleen Organ System

Spleen functions relative to Blood

- The structure of the spleen enables it to remove older erythrocytes from the circulation and leads to the efficient removal of blood-borne microorganisms and cellular debris. This function, in combination with a highly organized lymphoid compartment, makes the spleen the most important organ for antibacterial and antifungal immunity.
- Hyper (splenomegaly)
- Hypo (if no old cells, or bad cells splenomegaly)
- Normal
  - Erythropoiesis
  - Synthesis of Hemoglobin
  - Stores RBC's until needed
  - Culling action (regenerates and recycles RBC cells)
  - Filters the Blood (gets rid of "bad blood cells")
  - Destroys old blood cells and recycles iron
SP/PANCREAS FUNCTION

Western
- Endocrine: Insulin & Glucagon synthesis
- Mobilizes and Liberates Fuel stores (via glucagon)
- Controls plasma glucose levels (insulin)
- Supports Digestion: Exocrine cells secrete, zymogens, bicarb (small intestine)
  - Hydrolysis of starch, proteins and fats

TCM
- Ruling the Transformation of Food into Qi and Blood

TCM SPLEEN Functions
- Rules the Quality of Blood and keeps it in the blood vessels
- Nutrition / Assimilation
- Nourishes Qi and Blood
- SP Qi Deficiency: chronic food intolerance, appetite problems, vomiting and diarrhea
- Cardiomyopathy

Spleen Support

The Four Gentlemen / Si Jun Zi Tang
- Rdx Panax ginseng (Ren Shen)
- Rdx Codonopsis pilosula (Dang Shen)
- Rhizoma Atractylodes macrocephala (Bai Zhu)
- Paria cocos (Fu Ling)
- Drains Dampness

Other Supportive & Nutritive Herbs Qi Tonics
- Dioscorea opposita (Shan Yao)
- Astragalus membranaceus (Huang Qi) Immune System
- Zizyphus jujuba (Da Zao)
- Malated or Rock Sugar (Yi Tang)
- Excessive salivation, chronic abdominal pain
Spleen Disharmony with HT

Heart Spleen Deficiency symptoms
- Abdominal swelling
- Clotting problems
- Watery thin stools
- Appetite problems
- Fatigue, weak voice, bark or meow
- Shortness of breath
- Cardiomyopathy, palpitations

Heart Spleen/ Pancreas

Liver

Kidney

Lung

Heart Yin / Blood Deficiency

Deficient Heart Yin and Blood
Spleen Tonic Herbs & Formulas

- Support Digestive Functions
  - Atractylodes
  - Ginseng
  - Ginger
- Drain Dampness
  - Poria
  - Polyporous
  - Job's Tears (Chinese barley)

- Support Immune Functions
  - Astragalus

- Support Blood Tonics
- Foods
  - Taro, white rice, sweet potato, Buckwheat. Barley, squash
  - Beef liver

Deficient Spleen Qi with Deficient Heart Blood
Kidney Jing Deficiency

Liver Disease and Disharmonies

### What Does the Liver Do?

#### Western
- Energy Metabolism
- Glutathione (GSH) synthesis
- Glucuronidation
- Converts lipids and fatty acids into energy
- Synthesis of CoQ10
- Gluconeogenesis
- Glycogen storage and distribution
- Converts lipids and fatty acids into energy
- Protects (via GSH) against cancer by detoxification of polycyclic aromatic hydrocarbons, aflatoxins, and chemicals that are carcinogenic
- Creates (bile) and converts cholesterol into steroid hormones including aldosterone, estrogen, testosterone, and vitamin D
- Production of bile

#### TCM
- Stores “Blood”
- “Blood” may represent more than just RBC’s, platelets, and WBC’s, but also glycogen, glucose, hormones, bile, fatty acids, lipids, vitamins, and toxins that circulate in the body

- Moves and Circulates Blood
- Moves and circulates Energy Qi throughout the body but especially for muscles

### Western
- Toxic hepatopathy
  - Copper
  - Glucocorticoids
  - Anticonvulsants: primidone, phenytoin, phenobarbital

- Granulomatous hepatitis
- Chronic inflammatory diseases
- Chronic canine inflammatory hepatic disease
- Hepatic abscessation
- Canine granulomatous disease
  - Actinomyces, Nocardia, Mycobacterium
  - Histoplasmosis, aspergillosis, sporotrichosis, cryptococcosis
  - Dirofilariasis, visceral larval migrans, capillariasis, hepatozoonosis
  - Autoimmune disorders
  - Malignant histoplasmosis

- Hyperlipidemia
- Hepato-portal dysplasia
- Hepato-portal hypertension
- Neoplasia

### Liver Qi Stagnation
- Chronic hepatitis
- Dietary imbalances (excess)
- Drugs and chemicals
- Seizure disorders
- Skin diseases (hot spots, ear infections, allergies)
- Neoplasia
- Chronic inflammatory diseases

### Liver Invading Spleen
- Digestion and assimilation problems

### Liver Yin Deficiency
- Diabetes
- Hypothyroidism
- Chronic allergies
- Skin diseases (dry & dull)
- Fibrosis & cirrhosis

### Organ Relationships: Excess creates Deficiency.

<table>
<thead>
<tr>
<th>Creation (Sheng) and Control (Ko) Cycle</th>
<th>Liver Qi Stagnation / Liver Invading Spleen / Excess Dampness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dietary Excess: Heat, Dryness</td>
<td>Symptoms: Symptoms</td>
</tr>
<tr>
<td>Liver Stagnation: Spleen, Stomach, Kidney</td>
<td>Ascites, swelling of lower limbs</td>
</tr>
<tr>
<td>Heat, Dryness: Heat, Dryness</td>
<td>Diarrhea, vomiting</td>
</tr>
<tr>
<td>Kidney, Lung</td>
<td>Indigestion, poor appetite</td>
</tr>
<tr>
<td>Drugs, chemicals</td>
<td>Irritability, aggression</td>
</tr>
<tr>
<td></td>
<td>Epigastric pain</td>
</tr>
</tbody>
</table>

#### Creation (Sheng) and Control (Ko) Cycle

- Liver
- Heart
- Spleen
- Stomach
- Kidney
- Lung

#### Liver Qi Stagnation / Liver Invading Spleen / Excess Dampness

- Symptoms
- Ascites, swelling of lower limbs
- Diarrhea, vomiting
- Indigestion, poor appetite
- Irritability, aggression
- Epigastric pain
Liver Qi Stagnation/Spleen Disharmony

- Xiao Yao San / Major Formula = 3 formulas
- I. Tang Kuei 4 combination (Blood Tonic)
- II. 4 Gentlemen (Spleen Tonic)
- III. Si Ni San (bupleurum, bitter orange, peony, licorice)

Si Ni San

- Bupleurum chinense (chai hu) (saiko)
- Bitter, spicy, cool
- Resolves Yang Heat patterns
- Relaxes Stagnant Qi in Liver, chest and abdomen
- Support Yang Qi in Spleen and Stomach.
Spleen Disharmonies with LIV/KI

Liver Kidney Yin Deficiency

- Dry eyes, conjunctivitis and dry throat
- Dizziness, vertigo, ringing in ears, hearing loss
- Fatigue
- Low back pain, pain in the hypochondrium
- Night sweats, insomnia or restlessness
- Hot hand and feet

Liver Kidney Yin Deficiency Symptoms

Heart
Liver
Spleen/
Pancreas
F
&
Kidney
Lung

Anemia due to Splenic & Liver Tumors

Purple = Blood/Qi Stagnation
Pale Flabby Tongue
The most valuable mushroom in this age where most of the human population of the world will be 55 years or older. This mushroom can sustain life longer.

Cordyceps Treats LIV/KI/Blood

Spleen Disharmonies with KI

5 Element Relationships

| Heart | Liver | Spleen/Panc | Lung | Kidney |

Spleen Kidney Yang Deficiency
Symptoms:
- Cold paws and feet
- Poor appetite
- Diarrhea
- Fatigue
- Aversion to cold
- General weakness especially in the lower back
- Pale tongue
- Palpitations
- Lack of sperm, Incontinence

Geriatric Dog
Kidney Yin & Heart Yin Deficiencies

Heart Murmur  Incontinence  Restlessness  Chronic Nephritis
Treatment for Chronic Renal Failure

- Oral and Parenteral Hydration
- Antioxidants: Taurine, CoQ10, chlorella
- Phosphate Binders
- Mineral Supplementation
- Acupuncture
- Cordyceps in Combination
- Diet and Herbs to Support Anemia

Cordyceps sinensis TCM
Dong Chong Xia Cao

- Sweet, neutral
- Benefits Lung / Kidneys
- Nourishes Ki
- Reinforces Qi
- Stimulates Blood

Cordyceps Pharmacology

- Amino acids: glutamic acid, tyrosine, L-tryptophan
  - sedative effects
  - MAO inhibition
- Increases platelet formation
- Prevents liver and spleen atrophy
  - Prevents thymic hypertrophy
- Ophiocordin
  - antifungal (Microsporum spp.)
  - antibacterial (Staph, Strep, B.anthrax, Pasteurella)
Cordyceps
Veterinary Applications

- Generalized weakness in young and old deficient animals
- Anemia
- Geriatric animals with KI / Heart / Yin & Blood Deficiencies
- Bone marrow stimulation
- Kidney failure
- Lung cancer
- Asthma (Def. LU Yin) / chronic coughing

Human Medical Uses

- Chronic liver disorders
- Chronic nephritis / kidney failure
- Cardiac arrhythmias
- Geriatric disorders (KI Yin and Yang Deficiencies / Lu Yin Def.)
- Impotence
- Hyper-lipidemia, hypercholesterolemia
- Lung carcinoma
- Asthma

Cordyceps mushroom

- Improves Kidney Function
- Protects against damage by nephrotoxic elements or chemicals
- Restores Liver Function
  - Increases serum transaminase, SOD
  - Inhibits serum alanin & asparatate amino transferases
  - Decreases free radicals
  - Decreases cholesterol deposits in blood vessels

$5,000 / lb
Summary: Treating Anemia

- Focus on the anemia and Blood Tonics are only part of the treatment.
- For best results, supporting organ systems need to be facilitated in function SP / LIV / KI.
- Diet is an important support.
- Causative factors need to be addressed.
- TCM system can help choose the appropriate herb combination and monitor results. (Pulse & Tongue)