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 DISHARMONIES
- TREATMENT
  - INDIVIDUAL HERBS
  - FORMULAS AND COMBINATIONS
  - FOODS & NUTRACEUTICALS

QUESTIONS
## Common Problems Seen in Veterinary Practice Related with Anemia

<table>
<thead>
<tr>
<th>Canine</th>
<th>Feline</th>
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<tbody>
<tr>
<td>- Blood Loss (Trauma)</td>
<td>- Bartonella felis / FIA</td>
</tr>
<tr>
<td>- Hemolytic Diseases (Inherited)</td>
<td>- FeLV / Retroviruses</td>
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<tr>
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<td>- Diabetes</td>
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<tr>
<td>- Immune Mediated (AIHA)</td>
<td>- Hepatic Lipidosis</td>
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<tr>
<td>- Liver Disease</td>
<td>- Drug, Heavy Metal and Chemical Toxicities</td>
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What’s Going On?

- Blood Loss / Volume
- Hemorrhage
- Blood Hemolysis
- Regenerative RBC process
- Non-regenerative RBC process (chronic disease: 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 hematopoeises (Grey Collie); dense granule defect American Cocker,
- Platelet disorders (Von Willibrands)
- Bone Marrow Suppression (drugs, chemicals, radiation, cancers)
What's Going On?
What Causes Non-Regenerative Anemia?

- Toxins
- Phenylbutazone
- Estrogen
- Copper
- Chloramphenicol
- Meclofenamic 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
- Hemobartonella
- Chronic Infections
- Pyometra
- Pyelonephritis
- Discospondylitis

- Drug Toxicity
  - ivermectin
  - Sulfa drugs
  - Cephalosporins
  - Penicillin
  - Propylthiouracil
  - Methimazole
  - Procainamide
  - Acetaminaphen
  - Benzocaine
  - 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
  - Von Willibrands
  - Comb’s Test
- Ultrasound
- Radiographs

- What are the Causative Factors
Where Do Begin?

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

- **Where are the Excesses**
  - Dietary
  - Chemical, drug, radiation
  - Parasites (blood and intestinal)
  - Blood Stagnation
  - Pancreatitis
  - Liver Disease (Qi Stagnation)
  - Polycythemia
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 phelbitis:
- Symptoms: Purplish tongue, fever, inflammation, constipation, or inflammatory diarrhea.
## TCM Understanding
### Excess vs. Deficiency

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<td><strong>DEFICIENT</strong> BLOOD, LIVER, KIDNEY, HEART, SPLEEN patterns</td>
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<td><strong>EXCESS</strong> Inflammation, pathogenic invasion (heat and toxins), fibrosis and cirrhosis, Blood Stagnation</td>
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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 WBC’s, 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 (regenerate RBC’s in the spleen)

- **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 or thinning of hair, prickly pruritis,
- Palpitations,
- Pulse weak thin, irregular
- Pale mucous membranes, tongue
- Numbness in legs and feet
- Easy bruising, muscle cramps
- Restlessness, insomnia
- Hypothyroidism
- HypoAdrenalcoricism
Treating Blood Deficiency (anemia)
Creating a Treatment Strategy

- **Nourish Deficiency**
  - Blood
  - Spleen
  - KI? LIV?

- **Drain Excess**
  - Dampness / SP
  - Stagnant Qi / LIV
  - Stagnant Blood

- **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 /
  - Liver Heat/ Qi Stagnation
  - SP Dampness
  - Diet
Where Do Begin?

- **What Organs Need Support TCM**: Anemia is one symptom of underlying problems (disharmonies)

- **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?

- Deficient Spleen
- Blood Deficiency
- Blood Loss / Hemorrhage
- Kidney Deficiency
- Liver Qi Stagnation
  - Liver Yin Deficiency
- Weak Poor Digestion / Assimilation
- Deficient Heart
  - Blood / YIN
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

EXCESS OR DEFICIENCY?

REX 12 Yr Cattle Healer
Tonics and Tonification

- Support Organ Functions: LIV/KI/LU/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 KI 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
- **Tonifies 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*
  - *Agrimonia pilosa japonica* Xian e Cao
  - Cow bone
- **Animal Gelatin**
  - (donkey skin)
- **Panax pseudoginseng**
  - Yunnan Paiyao
Tang Kuei / Gelatin Combination

- Tang Kuei
- Peonia
- Rehmannia
- Ligusticum
- E Jiao
- Artemesia Ai 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

- *Equus 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
  - DonkeySkin
  - Plus Spleen Qi Tonics
    - Codonopsis
    - Astragalus
    - Poria
    - Licorice
    - Sugar

- Artemesia & Gelatin Combination
  - Chiung Kuei Chiao Ai Tang
  - Tang Kuei
  - Paeonia
  - Ligusticum
  - Rehmannia
  - DonkeySkin
  - 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
  - Papaya
  - Licorice
Medicinal Foods: Functional Nutritional Intervention

**NOURISH BLOOD TCM**

- **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
  - Milk & Dairy Products: cheeses, yogurt, butter(warming) LU
  - Ahi tuna dark meat, Sardine (moistens dryness)
  - Wild Salmon (warming/ supports Yang)
  - Black Beans, Black Soy Beans, Black Eyed Peas (SP/KI),

- **Starches & Carbs**
  - Sweet Potato (SP/KI, warming)
  - Squash (SP/ST warming)
  - Beet Root (Tonifies Yin)
  - Buckwheat (SP/ST/ LI, cooling)
  - Barley (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**
Colors of Food Relate to the 5 Element Organs: white/black/green/yellow/red
Medicinal Foods: Functional Nutritional Intervention  NOURISH BLOOD TCM

- **Fruits**
  - Ceylon Cherry Hill Gooseberry (strawberry guava / Hawaii (tomentosa) Tao Jin Niang (SP))
  - Mulberry (Morus rubra and M. alba) Sang Guo (Yin/ KI Yin)
  - Red Dates (jujube) Zizyphus jujuba Zao (SP/ Calms Mind)
  - Longan / Dragon Eye Long Yan Guo (dried fruits) (Qi/ SP)
  - Lotus Seed and Root Nelumbo nucifera, Lian Zi (SP/KI/HT/Hemostatic)
  - *Lycium barbarum*, chinense Gou Qi Zi (LIV/KI)

- **Supportive Herbs**
  - Yellow Dock (LIV)
  - Chickweed (SP/Yin)
  - Nettle leaves

- **Blood Stagnation**
  - Alfalfa
  - Safflower *Hong Hu*
  - Red Raspberry
  - Red Clover
  - Chlorella
Chickweed  *Stellaria media*

- **Sweet, cool, moist**
- Classified as a Restorative
- **Meridians:** Lung, Spleen, Stomach, LI, Heart
- **Functions:**
  1. **Yin tonic**, moistens dryness, generates
     - Fluids and clears Deficiency Heat
  2. **Spleen Qi tonic**—treats blood deficiency,
     - anemia, malabsorption, fatigue
  3. Demulcent, treats constipation
     - helps support the thyroid
  4. Clears heat and toxins when applied topically
Medicine Herb and Food

- **Mulberry** (Morus alba) and M. alba) Sang Shen

Nourishes Blood and Yin   Anti-Cancer
Lycium barbarum  Gou Qi Zi

Chinese Date: Zizyphus jujuba

Tonifies LIV & KI  Nourishes Blood & Yin

Tonifies Spleen Qi
Medicinal Foods: Functional Nutritional Intervention

- **Iron**
  - Kelp
  - Brewer's Yeast
  - Black Strap Molasses
  - Wheat Bran
  - Pumpkin and Squash Seeds
  - Wheat Germ
  - Beef Liver
  - Yellow Dock (*Rumex crispus*)
  - Spinach
  - Celery

- **Choline**
  - Beef liver
  - Lettuce
  - Cauliflower
  - Egg yolk
  - Garbanzo beans
  - Wheat germ

- **Folic Acid**
  - Brewer's Yeast
  - Black eye peas
  - Brown Rice Germ
  - Liver
  - Spinach

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

- **Vitamin B12**
  - Lamb or Beef Liver
  - Clams
  - Chicken liver
  - Black eye peas
  - Spirulina
Spirulina  *Arthrospira platensis*

Highest protein content of all edible food 45 – 60%

Chlorophyll, phycocyanin, 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… liquefy 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 Degenerating Disease processes with Anemia
- Chronic Renal Failure
- Cancer
- Diabetes, Cushings
- Malabsorption, IBD
- Auto Immune Mediated Hemolytic Anemia
- Hypothyroidism
- Liver cirrhosis / lipidosis
- Inherited Blood diseases
- Blood parasites: rickettsia, babesia, hemobartenella
- Retro viruses, FeLv (bone marrow suppression)
- Chronic drug and chemical exposure
- Hyperestrogenism

- 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 Willebrands
  - Doberman Pinscher
  - Shetland Sheepdog
  - German Shepherd Dog
  - Standard Poodle
Drugs and Chemicals/chronic exposure

Anemia

- IMHA
  - Sulfa drugs, cephalosporin, penicillin, propyluracil, methimazole, procainamide, vaccines
- Oxidative Damage Induced Hemolytic Anemia
  - Acetaminophen
  - Benzocaine
  - Phenapyridine
  - Methylene blue
  - Phenacitin
  - VitK 3
  - DL Methionine
  - Napthalene
  - Zinc, Cu
  - Onions, garlic
  - Radiation
5 Elements Yin Organs

- Heart
- Spleen/Pancreas
- Liver
- Kidney
- Lung
Consider Energetic Organ Relationships

- Heart Spleen Deficiency
  - Qi & Blood
- Liver Kidney Yin Deficiency
- Spleen Kidney Yang Deficiency
- Excess Dampness
  - Distressing the SPLEEN
Spleen Organ System

What Does the Spleen Do?  Spleen Disharmonies with Blood, KI, LIV & HT
Supportive Herbs
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 immune reactivity.

- Hyper (splenomegaly)
- Hypo (if no old cells, or bad cells) splenic atrophy
- 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
**Western**

- **Endocrine:** Insulin & Glucagon synthesis
  - Mobilizes and Liberates Fuel stores (via glucagon)
  - Controls plasma glucose levels (insulin)
- **Supports Digestion:**
  - Exocrine cells: secretes, 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)
- *Poria cocos* (Fu Ling)
  - Drains Dampness
- Rdx *Glycyrrhiza uralensis* (Gan Cao)

Other Supportive & Nutritive Herbs Qi Tonics
- *Dioscorea opposita* (Shan Yao)
- *Astragalus membranaceus* (Huang Qi) Immune System
- *Zizyphus jujuba* (Da Zao)
- Malted 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

5 Element Relationships

Heart
Lung
Kidney
Liver
Spleen/Pancreas
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

Von Willibrands + Inherited Cardiomyopathy
Liver Disease and Disharmonies

HERBS that Support: Liver Function, Blood Deficiency,
Support Yin, and Reduce “heat” and Move “blocked” Energy Qi Flow.
What Does the Liver Do?

**Western**
- Energy Metabolism
- Glutathione (GSH) synthesis
- Gluconeogenesis
- Glycogen storage and distribution
- Converts Lipids and Fatty acids into Energy
- Protects (via GSH) against Cancer by Detoxification of polycyclic aromatic hydrocarbons, aflatoxins, drugs 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” here may represent more than just RBC’s, platelets, and WBC’s, but also: glycogen, glucose, hormones, bile, fatty acids, lipids, antioxidants, and contaminants, carcinogens, parasites, bacteria and viruses
- Moves and Circulates Blood
- Moves and circulates Energy Qi throughout the body but especially the muscles
Western

- Toxic hepatopathy
  - Copper
  - Glucocorticoids
  - Anticonvulsants: primidone, phenotoin, phenobarb
- Granulomatous hepatitis
- Chronic inflammatory diseases
- Chronic Canine Inflammatory Hepatic Disease
- Hepatic Abscessation
- Canine Granulomatous Disease
  - Actinomyce, Nocardia, Myco bacterium
  - Histoplasmosis, aspergillosis, sporotrichosis, crypococciosis
  - Dirofilariasis, visceral larval migrans, capillarisis, hepatozoonosis
  - Autoimmune disorders
  - Malignant Histoplasmosis
- Hyperlipidemia
- Hepato-Portal dysplasia
- Hepato-Portal Hypertension
- Neoplasia

TCM

- Liver Qi Stagnation
  - Chronic Hepatitis
  - Dietary Imbalances (Excess)
  - Hyperlipidemia
  - 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.

Creation (Sheng) and Control (Ko) Cycle

LIVER QI STAGNATION / Liver Invading Spleen / Excess Dampness

- Symptoms
- Ascites, swelling of lower limbs
- Diarrhea, vomiting
- Indigestion, poor appetite
- Irritability, aggression
- Epigastric pain

Dietary Excess

Excess Damp

Liver Stagnation

Heat, Dryness

Heat, Dryness

KIDNEY

LUNG

Heart

Spleen/Pancreas

Liver

Drugs, chemicals
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 Symptoms

- 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
Heart
Digestion
Spleen/ Pancreas
Stomach
Anemia due to Splenic & Liver Tumors

Purple = Blood/Qi Stagnation

Pale Flabby Tongue
Cordyceps Treats LIV/KI/Blood

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.
Spleen Disharmonies with KI

5 Element Relationships

- Heart
- Spleen/Pancreas
- Liver
- Kidney
- Lung

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 & aspartate amino transferases
  - Decreases free radicals
  - Decreases cholesterol deposits in blood vessels

$5,000 / lb

Wild Cordyceps sinensis at 16,000 feet elevation – Tibet
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)