

Kidney (Renal) Failure (RF) is the end stage of Chronic Kidney Disease (CKD), a group of Kidney syndromes **affecting over 20,000,000 individuals in the United States**. Treatment prior to Kidney Failure can frequently avert this potentially catastrophic condition, and dramatically improves the health of patients. The majority of patients experiencing CKD will not progress to Kidney Failure, but catching this early and reversing the signs and symptoms of poor kidney function will lead to improved heart function and general health improvement. The herb protocol I present is appropriate treatment for both CKD and Kidney Failure.

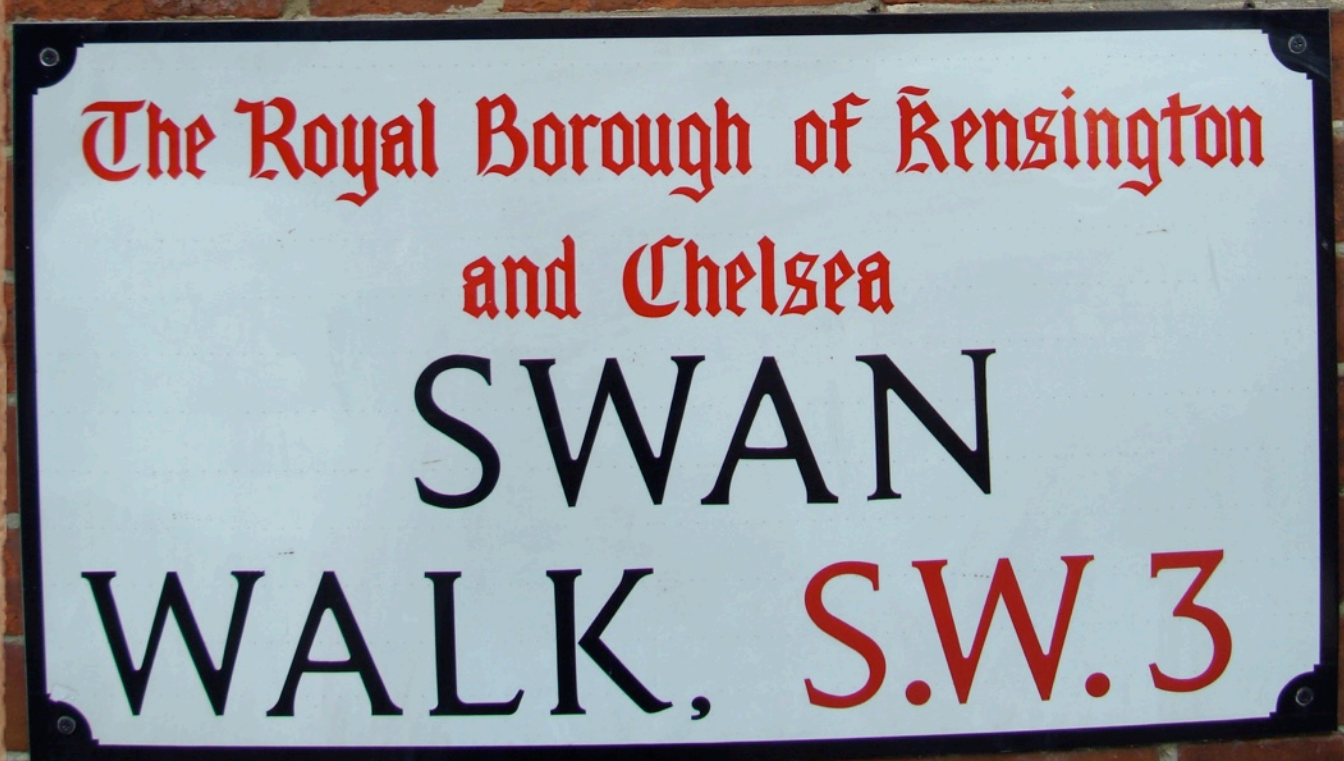
It is beyond the scope and time constraints of this 90 minute lecture to present the western anatomical and physiological pathology of Kidney Disease and Kidney Failure. Here are key points in discussing CKD and RF. In some cases, a patient may present with few symptoms, and a different chief complaint, and you may be the first to identify possible Chronic Kidney Disease. Referral to a PCP for blood work will assist in ruling out or confirming the diagnosis. On the other hand, a patient may present in extremis, after being placed on a wait list for kidney transplant, and/or preparing to begin long-term dialysis. They may come to you for assistance, in hopes of avoiding invasive western treatment protocols. We will not dwell upon the following in this presentation. Please review these slides & other sources for biomedical info. In brief, Glomerulonephritis is inflammation of the Glomerulus (plural-Glomerula), the functional filtration unit of the kidney. Inflammation frequently results in one or both of the nephritic or nephrotic syndromes. Azotemia is characterized by abnormally high levels of nitrogenous compounds (urea, creatinine, et al) in the blood. In more serious conditions, the computed Glomerular Filtration Rate (eGFR) will be elevated. Prerenal azotemia is caused by a decrease in blood flow (hypoperfusion) to the kidney, and is not a result of primary kidney disease. This can occur in hospitalized patients experiencing shock, hemorrhage, and hypovolemia, and is treated as an acute emergency. This may also be due to Congestive Heart Failure (CHF), and will necessitate an alternate herbal formulation based typically upon *Convallaria majalis* (Lily of the Valley), *Crataegus* (Hawthorne), and *Cactus grandiflorus* (Night Blooming Cereus). Again, this is beyond the scope of our current discussion. BUN/Creatinine ratio is usually greater than 20 in Prerenal Azotemia. Renal azotemia (renal failure) leads to uremia, and is an intrinsic disease of the kidney, due to glomerulonephritis, acute tubular necrosis, or other renal disease. BUN/Creatinine ratio is under 15. My experience is with glomerulonephritis, and does not include treatment of tubular necrosis. Postrenal azotemia results from blockage of urine flow out of the kidney. Causes include blockage by kidney stones, pregnancy, tumor compression of ureters, prostatic hypertrophy, & blockage of the urethra by stones. Blockage of the kidney output may result in hydronephrosis, and requires acute emergency care prior to addressing the root causes with herbal treatment.

Patients with chronic Kidney Disease (CKD) may present with a variety of symptoms:

- Changes in urination include increased (polyuria) or decreased frequency, diminished volume (oliguria, 80-400 ml/day), or inability to urinate (anuria, <50 ml/day).
- Changes in the urine's appearance, with frothy or foamy urine suggesting leakage of protein in the urine (proteinuria, albuminuria).
- Blood in the urine is probably the most frightening warning sign, and an urgent call to action. Inquire if the patient has consumed beets in the past 36 hours.
- Fatigue, while a very non-specific symptom, can be quite profound in CKD and RF. Erythropoietin (EPO) hormone production in the kidney maintains steady production of Red Blood Cells (RBC, Erythrocytes). Thus, inflamed kidneys leads to EPO deficiency, leads to RBC deficiency, leads to diminished Oxygen / O₂ available to provide energy to cells, and profound fatigue.
- Swelling frequently includes edema of the face, hands, and feet, as fluids accumulate in the tissues. This is frequently accompanied by overall weight loss, with face and eyes noticeable puffy. With severe swelling of the ankles, walking becomes difficult.
- Skin Changes can appear earlier than the more severe symptoms previously discussed. Itching due to a build up of nitrogenous wastes circulating in the blood and deposited in the skin in vain attempt at elimination. As build-up in the dermis (deep skin tissues) ensues, whole body itching becomes more severe, and a generalized rash may develop. Occasionally the skin will turn deep yellow or take on an eerie brown tint.
- Loss of Appetite is common in advanced CKD, as toxic compounds in the blood leave a metallic taste in the mouth and make the taste of food unpalatable. With RF, nausea and vomiting preclude ingestion of food.
- Chest pain and tightness ensues as excess fluids build up around the lungs and heart. This frequently manifests as shortness of breath, pain, and tightness in the chest. In RF, hyperkalemia (elevated potassium / K⁺ in the blood) can be a medical emergency, with the potential for serious cardiac arrhythmias and heart failure.

Causes of Chronic Kidney Disease (CKD)

- Causation is somewhat elusive; predisposition is a better target
- Most common concomitant condition is Diabetes mellitus Types I and II. Likewise, Metabolic Syndrome (aka Syndrome X) and elevated C-RP are strongly associated.
- Other conditions associated with CKD include small kidney size, vascular disease, Lupus, and drug and toxin induced chronic tubulo-interstitial nephritis.
- Obstructive nephropathies (eg., chronic bilateral kidney stones); polycystic kidneys
- An instructive example of a CKD epidemic is Meso-American Nephropathy, with highest incidence among Nicaraguan & Salvadoran agricultural laborers. Common to this group are exposure to pesticides, heavy labor in great heat, limited ability to hydrate, and inability to urinate for extended periods. We do know that benzene based compounds and heterocyclic amines are a risk factor for Bladder Cancer, and that these compounds have an affinity for the urinary tract.



ZUO GUI WAN

Restore the Left [Kidney] Pill

ml	latin	pin yin
30	Apis mel	Honey
5	Cervus cornu colla	Lu Jiao Jiao, Pilose Antler & Gel
155	Cornus officinalis fruc	Shan Zhu Yu
170	Cuscuta chinensis	Tu Si Zi
120	Cyathula officinalis	Chuan Niu Xi
190	Dioscorea villosa rad	Shan Yao
130	Lycium chinensis fruc	Gou Qi Zi
185	Rehmannia glutinosa rad praep	Shu Di Huang
8/2 tsp	Sodium Chloride	Salt, Halite, NaCl
7	Testudinis plastrum colla	Gui Ban Jiao / Gui Jiao, Turtle Shell and Gel
1,000		

Administration:

- Ages 7 to Adult: 1¼ to 1½ tspns tid to qid, in ¼ cup warm water before meals & bed

Nourishes the yin, tonifies the s, supplements essence, & benefits the marrow. For deficiency of the s (especially marrow and essence) w light-headedness, vertigo, tinnitus, soreness and weakness in the lower back, soreness and weakness in the legs, spontaneous & nocturnal emission, spontaneous & night sweats, dry mouth and throat, thirst, red, shiny tongue coat, and thin, rapid pulse.

A stronger version of the principal formula used in more severe cases.

Formula 2° this type disorder usually requires long-term treatment. Take doses with honey and with salt H₂O.

Source: Collected Treatises of [Zhang] Jing-Yue (Jing yue quan shu)

Case History: Typical Variant of a Kidney Failure Patient:

Practitioner: _____ Patient: _____, male, 79 yo October 20, 2010.

Dispense: **practitioner** pick up. 16 oz.

cc Kid failure, **no subjective sx's, elevated serum creatinine. A-Fib, Spas Colitis**, I-t/chr 30 yrs, **Kidney Failure, Leukoplakia**, Plantar fascitis, **elev Creatinine**, **P 54, sl w, 2 heart murmurs, p v irreg, fld shi, tt, strng, xu**, β -blkr COREG/A.FIB., AMLODIPINE/ NORVASC/ CARD ISCHEMIA, WARFARIN/A.FIB., SIMVASTATIN, CHOL OK!, FLOMAX/NOCTURIA, NaHCO_3 acidity/gout (hyperkalemia?), Calciterol/Rocaltrol/Io Vit D, ALLOPURINOL/GOUT/Hyperuricemia, **Heart Qi Xu, Qi Wild**, consid stpg warfarin & statin, **Liv & Kid Xu** per pract, **wants to avoid Dialysis/Renal Transplant**, consulted **MD**, **putting port in if creatinine goes any higher.**

16 oz. Formula: Dose: $2\frac{1}{4}$ to $2\frac{1}{2}$ teaspoons qid, before meals & bed.

155-Zuo Gui Wan**

Apis **mel

35- Althaea rad

Cervus cornu colla

40- Chimaphila

Cornus officinalis **fruc**

30- Commiphora mukul

Cuscuta chinensis

40- Crataegus flos

Cyathula officinalis

40- Eucommia

Dioscorea villosa rad

20- Juniperus fruc

Lycium chinensis **fruc**

30- Leonurus

Rehmannia glutinosa rad **praep**

30- Lespedeza

Sodium Chloride

30- Parietaria

Testudinis plastrum colla

20- Salvia apiana

30- Solidago

KEY 1

- Latin Name/s
- Family
- Common Name/s
- Pín Yín Name/s
- Habitat
- Part/s of Plant Used
- Harvest and Preparation
- Constituents,
Pharmacognosy
- Toxicology/ROS and MOS
- Incompatibilities
- Nature
 - Temperature
 - Humidity
 - Taste
 - Tropism



KEY 2

- Meridians/Channels
- Organs and Tissues
- Category/Function
- Actions
- Indications
- Contraindications
- Administration
- Formulary/Combinations
- Differentiation



李时珍画像 (1-147 3-16 蒋兆和绘)

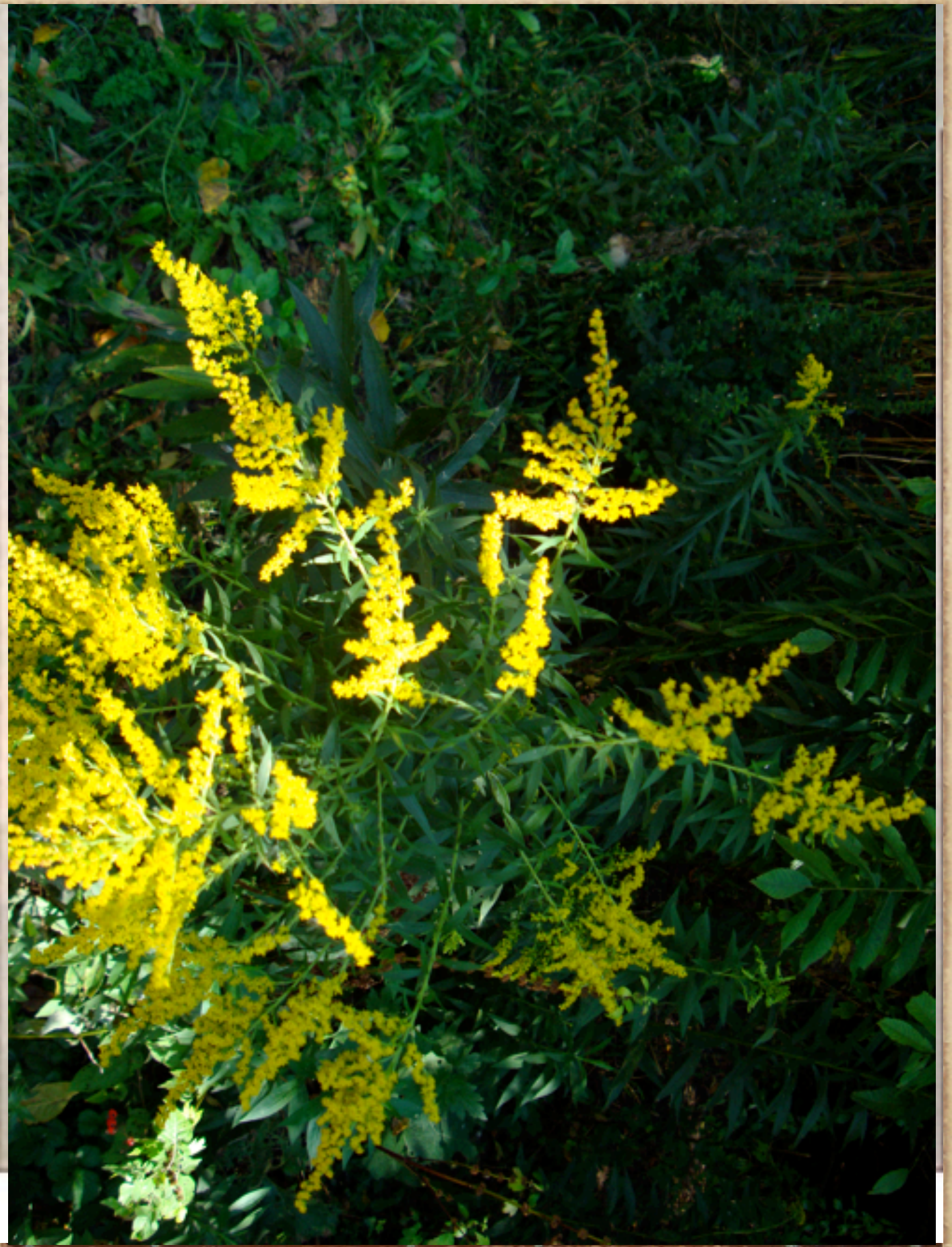
Solidago 1

- *Solidago canadense*, *S. virgaurea*, *S. odora*,
- Asteraceae
- Golden Rod
- Yí Zhí Huang Hua,
Líu Zhí Huang Hua (一只黄花)
- Montane Meadows, Sub-Alpine Forest Margins, North Temperate and Sub-Arctic
- Herba, at anthesis
- Fresh Herb HA Extract
- Chlorogenic acid, caffeic acid, Quercetin, Rutin, Astragalin, Cyanidin 3-gentiobioside
- Non-toxic, wide MOS
- Compatible with ACE Inhibitors, ARBs, Corticosteroids
- Nature
 - Cold
 - Dry
 - Spicy, Bitter
 - Downward, Outward



Solidago 2

- Liver and Gallbladder
- Kidneys
- Category/Function:
- Drains Toxic Swelling; Dredges Wind & Clears Heat; Cracks Bld & Opens Orifices, Stops Pain;
- treats jaundice, whooping cf, snake bites;
- Cl-Sp Xu Cold
- 15-20% of formula by volume
- Zuo Guí Wan, Parietaria, Lespediza, Chimaphila
- Chionanthus where Kidney unable to separate the clear and the turbid (albuminurea, proteinurea), hemostats in hematuria/nephritic syndrome



Solidago 3

- *Solidago decurrens* var. *dahurica*
- Anti-bacterial, diuretic, anthemorrhagic nephritis (nephritic syndrome), nephrotic syndrome, increases GFR, decreases BUN and Creatinine. Tx Glomerulonephritis (GN)
- In acute tubular necrosis of renal azotemia (acute kidney failure), add *Cordyceps sinensis* or *C. militaris*.
- Formula based upon Zuo Gui Wan (Restore the Left Kidney Formula) + Du Zhong (*Eucommia*), *Lespedeza*, and *Parietaria*.
- In severe Kidney Yang Xu, add a very small amount of Fu Zi (*Aconitum carmichaeli* rad praep) and Rou Gui (*Cinnamomum cassia* cort).



Lespedeza

- Lespedeza capitata, L. bicolor
- Fabaceae (Leguminosae),
Sub-family Faboideae, Tribe-
Desmodieae (NOT Trifolieae)
- Roundhead Bush Clover
- Hu Zhí Zí; Tíe Sao Zhou
- E. No. Am., Prairie/Woodland
- Part/s of Plant Used
- Harvest and Preparation
- Quercitin, Kaempferol,
Trifolin, Isoquercitrin,
Homoorientin
- Non-toxic, Moderate MOS
- Inc-Juniperus, Pinus, Thuja
- Nature
 - Cold
 - Moistening Diuretic
 - Bitter and Astringent
 - Neutral Tropism



Lespedeza 2

- Lív & GB
- Nephrogenic, Excreted in the Urine, Drains Excess Fluids
- Tonify Yín, Vitalize Blood
- Diuretic, Analgesic,
- Edema, Ascites of Liver and Kidney Disharmonies
- Cl--None, but due to it's cold nature, combine w/Cinnamon in Yang Deficiency Cold
- qid to q2h, ~° of disharmony
- Combine w/Zuo Guí Wan, Solidago, Parietaria; Alisma, Chimaphila,
- Differentiate in accord with BUN, Creatinine, GFR



Lespedeza in TCM

- Here we see Lespedeza going to seed.
- The following slide contains information graciously offered to me by my mentor, Dr. C.S. Cheung, MD of Harmonious Sunshine Cultural Center.
- <http://www.rmhiherbal.org/hsccl/>
- Dr. Cheung is likely the most prolific translator of TCM clinical information, with over 100 publications on every aspect of clinical herbology. I've used his research to great benefit in my clinical practice.



TCM: Of 20 species of Lespedeza in China, 7 are used in treatment of urinary problems:

Lespedeza bicolor, Hu Zhi Zi: lowers blood Nitrogen; promotes excretion of urea and creatinine; used for illness of nitrogenous wastes build-up in the blood, chronic nephritis, and **polycystic kidney disease**.

enters **Heart & Liver** meridians; **sweet & neutral**. moistens Lu & clr's Ht, drains fld & unblks dribbling; for lu ht cf, **whooping cf** & dribblings.

Lespedeza formosa, Mei Li Hu Zhi Zi: bitter & neutral; Action: drains urine

Lespedeza trigonoclada, Pa Shan Dou Gen neutral, astringent & sweet; Tx enteritis, dysentery, nephritis; relieves heat and arrests bleeding.

Lespedeza capitata: Tie Sao Zhou: Lespedeza bicolor: Hu Zhi Zi

Lowers cholesterol and blood nitrogen levels. One of its ingredients, a flavonoid glycoside, enhances excretion of **uric acid** and Chloride ions (Cl^-) of patients with kidney disease: treats azotemia, chronic nephritis, and polycystic kidney dis.

Property and taste: Mild sweet and neutral, slightly bitter. Enters Heart and Liver meridians.

Function and indication: Moistens Lung & Clears Heat; Drains Fluid and Unblock Dribbling. Indicated for Lung Heat cough, whooping cough, nose bleed, and urinary dribbling.

Also recorded that it is used for strengthening ligaments and benefiting the Kidney, energizing Spleen and expelling dampness.

Lespedeza bicolor Hu Zhi Zi, an Asian species that's become naturalized in the US.

Chem ingreds: Quercetin, kaempferol, trifolin, isoquercitrin, orientin, isoorientin, homoorientin

(**Lespedeza bicolor** is used inter-changeably with **Lespedeza capitata**).

Lespedeza cuneata, Entire plant is used. Closely related to **Tie Sao Zhou**, yet very divergent chemistry!) Chemical ingredients: pinitol, flavone, phenols, tannin, β -sitosterol.

Arrests cough, expels phlegm, pacifies asthma; antibiotic.

Bitter, spicy, and cool; enters Lung, Liver, and Kidney meridians.

Tonifies Liver and Kidney, benefits Lung Yin, dispels Ecchymosis, and relieves swelling.

Indicated for seminal & urinary incontinence, dribbling, leucorrhea, asthma, epigastric pain, consumption, dysentery, traumatic injury, poor vision, congested eye, & stomach abscess.

Lespedeza formosa, Mei Li Hu Zhi Zi—Flower:

Bitter and neutral. Indicated for non-smooth urination. Clears Heat and Cools Blood.

Indicated for Lung Heat, hemoptysis, and hemaecia.

Root: bitter and neutral. Clears Lung Heat, expels Wind Damp, & dispels Ecchymosis.

Indicated for Lung abscess, Wind Wet pain, and traumatic injury

Lespedeza trigonoclada, Pa Shan Dou Gen: Neutral, astringent and mild/sweet.

Indicated in enteritis, dysentery, hemaecia, nephritis, Wind Wet pain, traumatic injury.

Parietaria 1

- *Parietaria officinale*, *P. judaica*
P. hespera var. *californica* ?,
P. pensylvanica ?
- Urticaceae (Nettle Family)
- Pellitory of the Wall, Wall Dweller, Sticky Weed, (Rellita Pellitory, Pennsylvania P.)
- Walls and Calcareous Soils
- Hemicryptophyte scapose
- Herba--Fol, Flos, et Caul
- Harvest in early fall at anthesis, prior to seed set
- flavonoids kaempferol, rutinoides of quercetin, isorhamnetin, caffeoylmalic acid (Chelid, Urt), pyrrole acids
- Wide MOS; w/*Cinnamomum* in cold conformations
- Incompat: Alisma, Furosemide (Lasix), Loop Diuretics
- Nature
 - Cool
 - Moist
 - Bitter, Sour/Astring, Salty
 - Downward, Outward



Parietaria 2

- Lv, GB, Kd, UB
- Liver and Kidney
- Diuretic, Clear Heat & Toxin
- Gentle and Powerful Diuretic, Renal vaso-dilator!
- CKD, RF, Polycystic Kd, Ascites of Lv/Panc Cancer
- CI-Diuresis, electrolyte imbal (pre-renal, post-renal RF)
- 15% of formula, 2.5-3 tsp qid
- w/Solidago, Lespedeza, Chimaphila, Zuo Gui Wan
- Traditional herb in Metheglins (a healing liquor, medicated Mead, Honey Wine); Mead is from the Welsh "Medd." w/ Orthosiphon / Cat's Whiskers



in Polycystic Kidneys, Ascites, and elevated Na.

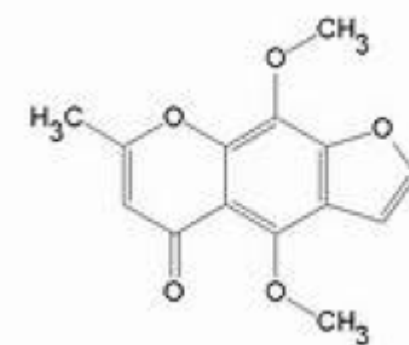
Ammi visnaga 1

- Ammi visnaga
- Apiaceae
- Khella, Visnaga
- Desert, Sandy Soils, North Africa, Mediterranean, Middle East, naturalized: Australia, So. America, Africa.
- Seed, Harvested in late Summer/Early Fall
- Khellin/pyranocoumarins, Visnagin/furanocoumarins, flavonoids, eo (terpenes), fixed oils, and protein.
- Moderate MOS, no reports of toxicity at 10% of formula.
- Incompatible w/High Dosage Statins, Digitalis, Coumarin.
- -cool, moist, aromatic, slightly bitter, descending



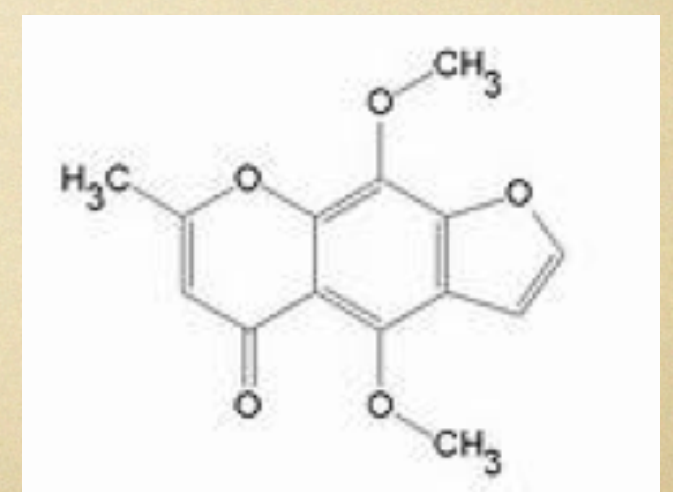
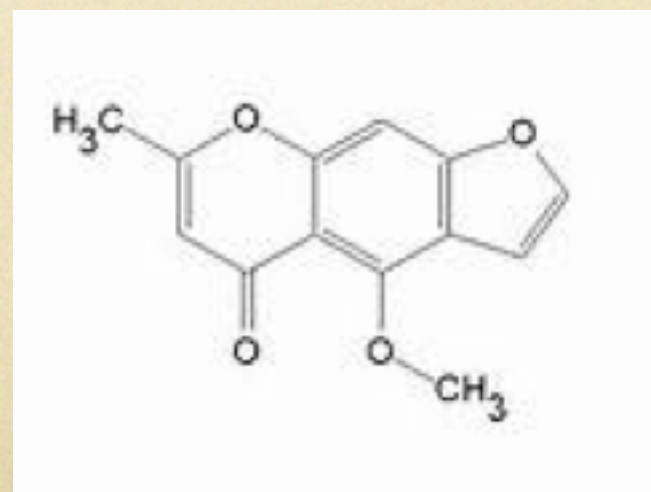
Ammi visnaga 2

- Hrt, Lu, LI, Lív, Kíd
- Heart, Lung, Kidney, Blood
- Regulate Qi, Vitalize Blood, Cool & Transform Phlegm Heat, Relieve Cough & Wheezing, Tonify Heart Yang
- Antispasmodic: Selective Coronary Vasodilator; Anti-anginal Khellin → Amiodarone, Regulates Heart Qi, Reg both SA and AV nodes!, Tx A-Fib, Ca Ch Blkr, Anti-arrhythmic in Ventricular & Supra-ventricular Arrhythmias, exhibits β , Ca, & K Ch Blkr activity, in unstable V-Fib, 1st Tx is Cardioversion/Defibrillation, then stabilize w/ Ammi, Saussurea involucrata, ...



Ammi visnaga 3

- Visnagin → Nifedipine, aka Procardia, Ca Ch Blkr in HTN, Pulm HTN, High Altitude (Cardio) Pulmonary Edema
- Antispasmodic for smooth muscle of Bronchus/Bronchioles, stabilize mast cells, preventing degranulation release of histamine, bradykinin, TNF α , Leukotriene, Interleukin, etc.
Khellin → Intal / Cromolyn Na, Na Cromoglycate, etc. → Nasalcrom, Opticrom, Intercrom (food allergies)
- Formulary—sister herb is Zi Su Zi (Perilla frutescens sem)
- Attack by wind cold (damp), with Grindelia and Eriodyction



Ammi visnaga 4

- Khellin and Visnagin prevent tubular endothelial cellular damage secondary to Calcium Oxalate crystal precipitation
- Reduces Oxalate deposition (nucleation, aggregation, retention leading to nephrolithiasis)
- Reduces free radicals and inflammation, and release of Lactate Dehydrogenase, indicating reduction of renal tubular injury and renal cell necrosis. Effective in both distal tubules and collecting ducts.



- Nuphar polysepalum, alias Nymphaea odorata, Castalia odorata
- Water Lily, Nymphaeaceae
- Pond Lily, Yellow Pond Lily, Water Nymph, Water Cabbage, Spatterdock, Frog Lily
- Root Crown-Lian Fang
Rhizome/Root-Lian Zi
- Bogs and Shallow eutrophic Ponds
- Root Crown, Rhizome/Root
- Spring or fall, cut and dry or fresh extract
- Nuphar-tannic acid, polysaccharides, starch, gum, resin, alkaloids, sitosterol



Nuphar 2

- Acute-wide MOS; Chronic-questionable. Non-toxic. Tox.-OD-Parotid pn., dry mouth, st. pn, diarrh., aphrod
- "Alkaloids," Fe/minerals, Emodins, Tannins
- Nature
 - Root Crown-Cold; Rhizome/Root-Cool
 - Drying Excess, Moistening Deficiency
 - Bitter, Sweet, Neutral, Astringent
 - Central
- Root Crown-Liver Rhizome/Root-Spleen, Kidney
- Root Crown-Uterus, Kidney, LI Rhizome/Root-St, TI, LI, Kidney, Uterus, Testes, Lymph
- Root Crown-Hemostat Rhizome/Root-Astringent Tonic



Nuphar 3

- Astringent, Demulcent/
Emmolient (Nourish/Support
Yin), Hemostatic, Anodyne
(Rhiz-RQ/Crown-VB), Lymphatic
- Root Crown-Menorrhagia,
Hematfaecia, Pre-partum leakage
/Spleen Deficiency (Xu),
Post partum retention of placenta,
Dysplasia, Leukorrhoea, Mastitis.
Rhizome/Root- Sub-Acute to
Chronic Diarrhea/"Dysentery,"
Poor Appetite with Spleen Xu,
Seminal Emission: Ext.-lymph
enlg., boils, leuk/vag.
- CI-Constipation, Flatulent intestinal
distension, pregnancy
- 8 to 15% of FE formula, 2.5 teaspoons
4 to 8 times daily.
Ext: Ad lib
- w/Potentilla (crown & rhizome)/all uses
- w/Chimaphila in renal injury

