

BOTANICALS AND ARRHYTHMIAS

By

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Arrhythmia

1. Abnormal electrical activity of the heart
2. Heartbeat (or pulse) may be too fast or too slow; regular or irregular
3. Some arrhythmias are life threatening

Sinus arrhythmia refers to a normal phenomenon of mild acceleration and slowing of the heart rate(pulse) that occurs with breathing in and out

Proarrhythmia is a new or more frequent occurrence of a pre-existing arrhythmias; it can be a side effect of certain medications and/or herbs

Atrial

1. Premature atrial contraction PAC, APC
2. Wandering atrial pacemaker
3. morphologies
4. Atrial flutter
5. Atrial fibrillation

Junctional

1. Also called SVT- supraventricular tachycardia
2. Junctional rhythm
3. Premature junctional contraction

Ventricular

1. PVC, VPC
2. Idioventricular Rhythm

3. Monomorphic Ventricular Tachycardia
4. Polymorphic VT
5. Ventricular Tachycardia
6. Ventricular Fibrillation

Bradycardia

1. Rhythm less than 60 beats/minute
2. Can be seen in an endurance runner, a pause (sinus arrest) or a block (AV block)
3. Can present in normal functioning heart (runner, athlete)

Tachycardia

1. Resting heart rate greater than 100 beats/minute
2. Normal response to exercise or stress
3. Can be also caused by caffeine, amphetamines or overactive thyroid

Antiarrhythmic Drugs:

1. Sotalol(Betapace)
2. Lidocaine
3. Propafenone (Rythmol)
4. Amiodarone (Cordarone)
5. Dofetilide(Tikloosyn)

Other drugs used:

1. Amlodipine (Norvasc)
2. Diltiazem(Cardizem);
3. Nifedipine (Procardia)
4. Verapamil (Calan)

Atrial Fibrillation

1. Most common rhythm seen
2. Irregular/ irregular
3. Most common causes
 - CAD
 - Valvular Heart Dx
 - Hyperthyroidism

Other causes:

1. Unstable blood sugar
2. Food allergies/sensitivities
3. Heavy metals- -Hg, Ars, Cd
4. Infections
5. Alcohol- Holiday Heart

Genus Crataegus**Hawthorne**

C. laevigata

Also called:

- *Crataegus oxyacantha*
- *Crataegus oxyacabothides*

Hawthorn berries

- high content of bioflavinoids
- increases body's ability to use oxygen
- heart ability to use calcium

Effects:

1. Negative chronotropic
2. Positive inotropic
3. Coronary dilation
3. Similar to cardiac glycosides

Hawthorne

In addition treating arrhythmias: treats

1. Hypertension
2. Ischemic heart disease
3. Congestive Heart Failure

Dosages used for Hawthorn

1. 160 – 1800mg for 3-24 weeks
2. Extract of Hawthorne standardized to 18.75% procyanidins
2. Extract of Hawthorn standardized to 2.25 % flavonoids

Dosages of Hawthorn



General Use

-solid extract: 120-240mg tid of standardized product

-ea: 1-2 tsp berries; steep in 8 oz water

-tincture: 5 ml tid (1:5 dilution)

Cactus grandiflores



Cactus grandiflores

Selenicereus grandiflores

Night Blooming Cactus

Contains flavinoids, rutin, isoquinoline alkaloids and amines

Use:

1. Good for cases where there is heart trouble against a background of sympathetic excess, nervous weakness (F. Petersen 1905)

Finley Ellingwood (1918)

“ heart tonic par excellence”

John W Fyfe(1909)

cannot be expected to cure structural (as valvular)
only used when heart rhythm is irregular

Charles Kane

“ the plant slows and strengthens
the heartbeat, as do the convallarias.”

“best used when the pulse is weak and fast and cardiac output is decreased”

Cytisus scoparius (Scotch Broom)



Also called

-*Sarothamnus scoparis*

or Scotch Broom, Butcher's broom, sweet broom, Jews's myrtle

Does not belong to the group of digitalis-like medicinal plants

Contains NO glycosides

Contains an alkaloid, sparteine and oxytyramine

Actions:

1. Useful for accelerated atrial arrhythmias
2. regulate the action of the heart
3. improves venous return

Scotch Broom

- non toxic in large doses
- can be given long term
- excellent for those patients with PVC'S , APC'S
- not adequate for tachycardias

Dosages:

- infusion of broom flowers 2.5/180
- 1 tablespoon 3-4 times/daily

Spartiol-sparteine sulphate .3 mg
distilled water to make 30
15-20 drops three times daily

Or...

sarteine sulphate 2.0 mg
caffeine/Na benzoate 10
Bitter almond water 10
distilled water to make 100
30 drops three times daily

Oral preparation

called **Depasan**
(Italian Pharmaceutical Company)
100mg of **Spateine**

The dose

I utilize for most cases is
20 drops there to four times daily

Leonurus cardica

Motherwort



Other names

European motherwort

Lion's tail

Heart-wort

Uses:

1. tachycardia secondary to hyperthyroidism
2. can be used with bugleweed and lemon balm to alleviate hyperthyroid symptoms
3. All in the Mint Family

Culpepper wrote

"Venus owns this herb and is under Leo. There is no better herb to drive melancholy vapours from the heart, to strengthen it and make the mind cheerful, blithe and merry."

“It is of good use to warm and dry up the cold humours, to digest and disperse them that are settled in the veins, joints and sinews of the body.”

In Chinese astrology, as a Metal Rat this is one herb close to my heart.

Takes its name as it has a relaxing effect on the uterus and taken a week or two before childbirth to stimulate labor.

I owe my birth to the good effects of Motherwort.

Cardiac uses:

- calming effect on the heart
- good for the irregular, irregular rhythms as atrial fibrillation
- can lower blood pressure

In Chinese medicine, motherwort was used to promote longevity and strengthen the heart

Lily of the Valley *Convallaria majalis*



Leaves are said to have the most powerful action followed by the flowers

The red fruits are highly poisonous

Active principles:

1. pure glycoside: convallatoxin
2. can complete with other glycoside:strophanthin
3. Other constituents: convallamarin, convallarin, and convallarinic acid

Preparation:

Convallaria

Cardalept

3. Brady rhythms for severe HF

4/ Tachy rhythms

5. Some companies have combined equal forms of convallaria and crataegus

- Convacard
 - Made by pharmaceutical company: Madaus
 - No chemical manipulation
 - Good preservation
 - Convallaria glycosides in high concentration/equal constant proportions
 - Enteric coated tablets
 - Rapid absorption/ no GI effects

Thank you for your time this evening.

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