

ASTHMA

Strategies of primary and support treatment with herbs

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THE MEDICAL MODEL (SIMPLIFIED)

[Since most patients seeking herbal support for asthma come to us by way of Standard Practice Medicine, here is a brief review of the current medical model and treatment.]

Asthma is an inflammation of the lungs which causes airways to narrow, making it difficult to breathe. During an asthma attack:

- * The muscles around the bronchi tighten making the bore of the bronchi smaller.
- * The lining of the bronchi swells (becomes inflamed) and produces mucus, making the opening in the airway smaller.

Asthma can cause you to be highly sensitive to conditions that may not affect other individuals, such as:

- * grass, mold or ragweed (allergens)
- * smoke, paint or fumes (irritants)
- * viral infections -- colds, flu, sore throats
- * changes in air pressure and cold air
- * exercise

The cause of asthma is unknown, but the disease tends to run in families and most asthmatics have allergies. Asthma varies greatly from one person to another. Symptoms can range from mild to moderate to severe. It is important to know that asthma is a long-term illness that can occur at any time in one's life. It is a serious disease with acute episodes (asthma attacks) that, if not properly treated, can be LIFE-THREATENING.

HOW IS ASTHMA TREATED MEDICALLY?

While there is no cure for asthma, there medications are available that help relieve symptoms and treat the underlying disease. As a first step, most doctors recommend eliminating or avoiding asthma "triggers." For example, if animal dander (tiny scales from hair, feathers or skin) is likely to cause an attack, you should avoid places where animals are present. However, since it is virtually impossible to avoid or remove all the "triggers" from the environment, your doctor may prescribe one or more medications to prevent or treat the asthma flare-up.

TYPES OF MEDICATIONS

Anti-Inflammatory Medicines:

Reduce swelling of the lining of the bronchi and reduce mucus production. Best when used daily for moderate to severe asthma.

o Oral Steroids such as prednisone and prednisolone can quickly reduce the inflammation of the bronchi during an "attack."

o Inhaled Medicines such as cromolyn sodium and inhaled corticosteroids. They keep inflammation from starting and are used daily to prevent asthma attacks.

Bronchodilators:

Relax the muscles which have tightened around the bronchi.

- o Adrenergic bronchodilators (Beta-2 agonists) provide temporary relief of symptoms, but do not treat the inflammation. Available in aerosol form (inhaled) or tablets (oral). Tablets work slower and have more side effects. Bronchodilators are best when used infrequently to treat an acute attack.
- o Theophylline available in liquid, capsule or tablet form. When used in a time-released formula it has a long duration of action, making it particularly useful for the control of "night time" asthma.

ASTHMA TRIGGERS

Triggers are anything that make asthma worse. They most often include:

- o Respiratory infections such as colds, flu, sore throats and bronchitis
- o Allergens (substances to which people are allergic) like pollens, foods, dust, mold, feathers, or animal dander (small scales from animal hair or feathers)
- o Air irritants such as dirt, cigarette smoke, gases and odors
- o Exercise
- o Emotional stress
- o Sudden changes in air temperature or humidity

PHILOSOPHIC CONSIDERATIONS in herb usage.

Up until a few years ago, the primary focus of medical treatment of asthma was on controlling the involuntary cholinergic constrictions and/or spasms of the bronchi. This was also true in classic herbal usage.

To follow the traditional botanical approaches, one used:

ADRENERGIC AGENTS to force open the bronchi by mimicking adrenalin. These included Green Tea, Coffee, Yerba Santa (*Eriodictyon* spp.), Horehound (*Marrubium vulgare*) and later, Ma Huang (*Ephedra vulgaris*, *E. sinica*, etc.) *Lobelia inflata* was sometimes used as a gagging emetic, since an adrenalin discharge normally follows vomiting.

ANTI-CHOLINERGIC AGENTS to block the parasympathetic or "cholinergically"-induced constricting spasms that typified the most common asthma. These included Belladonna, *Datura*, Henbane, *Scopola*, *Garrya* and their alkaloids. These were taken as tincture, fluidextracts, injections, or as "asthma powders" and "asthma cigarettes".

PARASYMPATHOMIMETICS were used in spasmodic asthma, since, practically speaking, spasms resulted from the bronchi responding to "alternating" sympathetic and parasympathetic hormonal and neurologic stimulus, with the bore or lumen opening under sympathetic adrenergic stimulus, and closing under parasympathetic stimulus. Spasms might cease by either the use of adrenergic agents or with a cholinergic (parasympathetic) agent such as *Lobelia inflata*. *Lobelia* was especially important because it was also a...

BRONCHIAL ANTISPASMODIC. Most bronchial antispasmodics were used to PREVENT attacks (Lobelia being an exception, being also useful in acute attacks.) These included Passiflora, Symplocarpus (Dracontium), Petasites, Inula, Cannabis, Drosera and, later, Ammi visnaga.

THE PROBLEM, of course, is that asthma, once predominantly a disorder with MUSCULAR constriction of breathing (and inflammation and edema being generally a secondary consideration,) has, in the last fifty years, become one predominantly of MEMBRANE constriction of breathing, and bronchial spasms becoming a secondary consideration, often the result of fear, habit, or in rebound from beta(2) adrenergic blockers. The face of asthma at the end of the twentieth century is very different than that of the past.

- o 80% of asthmatics are allergic
- o 10-15% of American children already wheeze from membrane inflammation.
- o Inner city, minority and poor Americans suffer substantially greater morbidity and mortality.
- o Environmentally-difficult areas such as Mexico City now have a rate of asthma amongst children in some areas as high as 50%
- o Recent studies about the newer face of asthma show that asthmatic children usually become asthmatic adults.

The present and future nature of asthma, therefore, necessitates some substantial changes in treatment strategies for the herbalist. The disorder has become one having stronger environmental, dietary and genetic causes. The older more traditional approaches, although often useful, are likely to become increasingly secondary. Spasmodic asthma, once the dominant type (and upon which our Eclectic, Thomsonian, Physio-Medicalist and early Naturopathic treatments are based) has given way to an asthma that is predominantly inflammatory, edemic, reactive, occupational, and exertional.

PRACTICAL STRATEGIES

When using herbs to MODIFY or PREVENT asthmatic conditions (by whatever acronym), it is important to not use botanicals that puts further stress on the patient's metabolism. Side effects caused by herbs CANNOT be lumped together under the term "healing crisis". If any of our therapies causes side effects, it is inappropriate. It is seldom that asthma is other than chronic, and I feel that the best approach is using herbs to prevent acute episodes, while lessening metabolic stress with tonics and whatever modality successfully supports lessened stress.

MAST CELL STABILIZATION

Several herbs have shown experimental and (more important) practical effects to slow down overactive mast cell responses, and therefore decrease the release under irritation of histamines, heparins and leukotrienes. All seem to be devoid of major side effects

Albizia lebbek (East Indian Walnut), *A. julibrissin* (Silk Tree, Mimosa)

Ambrosia spp. (Ragweed)
Bidens spp. (Tickseed, Bidens)
Chrysanthemum leucanthemum (Oxe-Eye Daisy)
Melaleuca leucadendron (Cajuput)
Sagittaria trifolia and others (3-Leaved Arrow-Head)
Sasa albomarginata (Kuma-Sasa Bamboo)
Tanacetum parthenium (Feverfew)

NON-SPECIFIC MUCOSAL ANTI-INFLAMMATORIES

These are several plants that do not fit in other categories, either because their action is ill-understood, or singular

Encelia farinosa (Brittlebush)
Euphrasia spp. (Eyebright)
Glycyrrhiza lepidota (American Licorice)
Glycyrrhiza glabra (Eurasian Licorice)
Sedum (Rhodiola) rosea or *S. integrifolia* (King's Crown)

NON-SPECIFIC MUCOSAL ANTI-INFLAMMATORIES (Mint Family)

These are several plants in the Labiatae Family that exert an anti-inflammatory effect by modifying or suppressing eicosanoid cascades in the mucosa and skin. Carnosic acid derivatives seem to be the agents. Although other more bioactive herbs such as Scutellaria, Lycopodium, etc. maintain these effects, those listed below are less complex and more focused.

Betonica betonica (Betony)
Hyptis spp. (Desert Lavender)
Hyssopus officinale (Hyssop)
Lepechinia spp. (Pitcher Sage)
Melissa officinalis (Lemon Balm)
Salvia apiana (White Sage)
Stachys spp. (Woundwort, Hedge Nettle)

DECONGESTANTS

Ephedra nevadensis, *E. viridis* (Mormon Tea)
Eriodictyon spp. (Yerba Santa)
Marrubium vulgare (Horehound)
Urtica dioica (Common Nettles)

STIMULANTS TO LIVER METABOLISM of NITROGENOUS WASTES

Used to speed up catabolism and metabolism of immunocomplexes, thereby lessening the duration of immunologic "grey noise"

Berberberis spp. (Common Barberry)
Mahonia spp. (the Oregon Grapes)

TISSUE PROTECTANTS

These several herbs help to limit pulmonary damage from edema, inflammation and necrosis

Althea spp. (Marshmallow, Hollyhock)

Balsamorhiza spp. (Balsam Root)

Echinacea spp.

Ganoderma spp.

Rudbeckia laciniata (Cut-leaf Coneflower)

ANTI-OXIDANTS

These herbs variously help lessen free-radical cascades, and may raise threshold levels for acute episodes.

Crataegus monogyna (Hawthorne)

Curcuma longa (Turmeric)

Erodium cicutarium (Fillary, Storksbill)

Fraxinus excelsior (European Ash)

Hamamelis virginiana (Witch Hazel)

Heterotheca inuloides and others (Mexican "Arnica")

Larrea tridentata (Chaparral, Gobernadora)

Mahonia spp. (Oregon Grape)

Melissa officinalis (Lemon Balm)

Peumus boldus (Boldo)

Pluchea spp.

Prunella vulgaris (Self Heal)

Schisandra chinensis

Solidago virgaurea (Goldenrod)

STIMULANTS TO NON-SPECIFIC RESISTANCE

These are herbs that tend to lessen the DEGREE of metabolic stress, from whatever cause.

Aralia racemosa (Spikenard)

Astragalus mongholicus

Eleutherococcus senticosus (Siberian Ginseng)

Panax ginseng, *P. quinquefolia* (Ginseng)

Schisandra chinensis

Sedum (Rhodiola) rosea or *S. integrifolia* (King's Crown)

ANTI-FUNGALS

These are sometimes necessary as mouthwashes, nasal sprays or gargles, since the use of corticosteroid therapy for asthma, however valid, causes a high incidence of thrush, and further, many asthmatics have chronic upper-respiratory fungal infections. All those listed should be used as simple infusions of the aerial parts.

Castela or *Holacantha* spp. (Chaparro Amargosa)

Epilobium angustifolium (Fireweed, Great Willow Herb)

Larrea tridentata (Chaparral, Gobernadora)

Nuphar spp. (Yellow Pond Lily)

Sagittaria spp. (Arrow Head)

Salvia apiana (White Sage)

PRIMARY TREATMENT PROTOCOLS

Chronic Inflammation, Auto-immune disorders, Allergies

Prepare a tonic, with emphasis on tea herbs when possible.

Recommend a **mineral tea**, to be taken 2-3 times a day, prepared fresh each time, using available combinations of Alfalfa, Red Clover, Nettle Leaf, Mormon Tea, Oat Herb or Dandelion Leaf.

- If there is **chronic mucosal congestion**, add to the above, Oxe Eye Daisy (*Leucanthemum*), Canadian Fleabane (*Conyza*), Tickseed (*Bidens*), Horsetail (*Equisetum*), Yerba Mansa Leaves (*Anemopsis*) or Pearly Everlasting (*Anaphalis*)
- If there is **chronic intestinal congestion**, add Canadian Fleabane (*Conyza*), Walnut Leaves (*Juglans*), *Erodium*, Sumach Leaves/Berries (*Rhus*), Jojoba Leaves (*Simmondsia*) or Fireweed (*Epilobium*).
- If the **skin or joints** are the **primary reactive tissues**, add Betony or Hedge Nettle (*Stachys* spp.), Desert Lavender (*Hyptis*), Self Heal (*Prunella*), Rosemary, Basil, Lemon Balm (*Melissa*), *Agastache* spp., Yerba Mansa Leaves (*Anemopsis*), Chamomile or Pineapple Weed (*Matricaria*). Ginger Root may be used if it does not aggravate the skin or digestion.
- If the **lungs** are the **primary reactive organs**, add Oxe Eye Daisy (*Leucanthemum*), Horsetail (*Equisetum*) or Pearly Everlasting (*Anaphalis*), Cudweed (*Gnaphallium* spp.), Yerba Santa (*Eriodictyon*), Horsetail (*Equisetum*), Yerba Mansa Leaves (*Anemopsis*) or Desert Lavender (*Hyptis*).
- If the **liver** is the **primary reactive organ**, add Pearly Everlasting (*Anaphalis*), Cudweed (*Gnaphallium* spp.), Pussy Toes (*Antennaria* spp.), Agrimony Herb, Dandelion Leaf, *Erodium*, Rosemary or Basil.

SUPPLEMENTS:

- Vitamin C (1-2 grams daily).
- Vitamin E (between 400 and 800 i.u .daily).
- Magnesium (usually 500 mg daily).
- Selenium (around 50 mcg daily).
- Chromium chloride or picolinate (100-200 mcgs daily).
- Zinc (25-50 mgs daily...not to used concurrent with NSAIDs).
- Omega 3 oils (fish oils, 1-3 grams a day, Flax Oil, 1-2 tablespoons a day).

ANTI-OXIDANTS and ANTI-INFLAMMATORIES

- Chaparral (*Larrea*) as a tincture, 30-60 drops a day.
- Milk Thistle (*Silybum*), 3-6 capsules a day, 20% Silymarin, 1 a day.
- *Mahonia* as a tincture, 30-60 drops a day.
- Turmeric (*Curcuma*), 4-8 capsules a day, Curcumin 95%, 2-3 capsules a day.
- Licorice Root (*Glycyrrhiza*), 4-6 capsules a day, 20% Glycyrrhizin, 1-2 a day.
- *Ginkgo* 24/6 extract 50-200 mgs a day.
- Green Tea 1-3 cups a day
- *Andrographis paniculata* (respiratory or liver) 15% *Andrographolides*, 1 capsule a day
- *Coleus forskohlii* as a tincture, 60-90 drops a day, 2-4% forskohlin, 2-4 capsules day (except with low blood pressure or with beta blockers)
- *Boswellia serrata*, 60% boswellic acid, 2-3 capsules a day
- *Astragalus membranaceus* as tincture, 60-120 drops a day, as FE, 30 drops a day, as capsule, 3-4 a day
- Desert Willow (*Chilopsis*) as strong decoction, 3-4 ounces a day, as tincture, 60-90 drops a day, as capsule, 3-4 a day.

FLAVONOIDS

Blueberries or Huckleberries, Prickly Pear fruit, Cactus Flowers, Penstemon Flowers, Ocotillo Flowers, Desert Willow Flowers, Service Berries, Salal Berries, Rose Hips, Elder Berries, Aralia Berries.