

Medical Herbalism

A Journal for the Clinical Practitioner

Volume 13, Number 4

Fall 2003

Chronic sinusitis

By Paul Bergner

Abstract

Chronic sinusitis is a common complaint in herbal practice. Recent discoveries of the complex causes and conditions surrounding chronic sinusitis may help the herbalist select the most effective remedies and the method of their application. The underlying infective agent in most cases appears to be a fungal pathogen, accompanied by an allergic response to the fungus. Multiple fungi may be present, as well as multiple simultaneous infecting bacteria. Broad-spectrum topical anti-microbial herbal agents, which can be administered as a nasal spray, are reviewed, with two case histories.

Chronic sinusitis is a common complaint in herbal practice. In its chronic form, it may be accompanied by nasal polyps, organic changes in the mucosa visible on CT-Scan, and sometimes requires surgery. The condition usually does not respond well to antibiotic treatment. One reason appears to be that chronic sinusitis is usually caused by fungal infection, with a corresponding allergic reaction to the fungus, in addition to the bacteria that are sometimes present.

Fungal sinusitis

Allergic fungal sinusitis, a subset of chronic sinusitis, was recognized in 1984. Its incidence was assumed to be low, from 6-8% of patients requiring surgery. Diagnosis depended primarily on assessment of Type I hypersensitivity, Immunoglobulin E-mediated hypersensitivity (Bent and Kuhn). It is now considered to be responsible for most chronic cases (Clarke et al; Feger et al). Researchers at the Mayo Clinic recently demonstrated that some form of fungal infection is involved in nearly all chronic infections and that eosinophilia, rather than IgE-mediated hypersensitivity, is the typical immune response (Ponikau et al 1999). The researchers examined the nasal secretions of 210 patients with chronic sinusitis, and found evidence of fungal infection in 96% of them. Allergic fungal sinusitis was diagnosed in 93% of the patients

Continued on page three

West Nile: From the Front Lines

by Paul Bergner

Abstract

Mosquito-borne West Nile Fever is now present in most of U.S. and Canada east of the Rocky Mountains. As of August 22, 2003, 772 cases have been officially confirmed in 30 states, including 17 deaths. More than a third of the cases and 40% of the deaths have occurred in Colorado, with cases clustered in the Front Range cities. Mild forms of the disease are much more common in Colorado, and as much as 5% of the population of the Colorado Front Range may have or have had mild symptoms this year. Treatment of uncomplicated West Nile fever may rapidly become a part of any standard herbal or alternative medical practice throughout the country. Twenty-five cases of mild disease not requiring hospitalization are reviewed, along with one case with hospital admission.

West Nile Virus has now become endemic in most of the U.S. and Canada east of the Rocky Mountains. The incidence this year is unusually high in the Front Range area of Colorado, between Pueblo and Fort Collins. Excessive spring rainfall and an unusually large resulting mosquito population may explain the concentration of the disease there. The primary reservoir of the virus is the bird population, and it is spread to large mammals and to humans via bites from mosquitoes who have bitten a bird with a viremia.

The highly publicized cases and deaths in the media are misleading, in that they greatly under-report the actual prevalence of the illness, whose symptoms are generally so mild that sufferers do not seek the care of a physician, and do not miss work or school. On August 28, a representative of the Colorado Department of Health estimated that 5% of the population of the Front Range area had mild cases of West Nile Virus without encephalitis; a number approaching 200,000 cases. It is so common that local doctors are refusing to confirm the infection with lab work unless evidence of severe disease is present. The typical medical prescription is Advil for the accompanying headache. In a

Continued on page nine

Sinusitis from page one

requiring surgery. Notably, the majority of the AFS patients did not have evidence of IgE-mediated hypersensitivity. Instead, the common denominator in all patients was the presence of eosinophils in the allergic mucin. The same Mayo Clinic researchers then conducted a follow-up clinical trial of intranasal antifungal treatment in 51 randomly selected patients with chronic sinusitis. The antifungal agent was amphotericin B (Ponikau et al 2002). Symptoms improved in 75% of patients, and in 35%, the patients became disease-free. No effect was seen in 25% of patients.

Multiple infections common

The lack of a higher response rate may be due to the mixture of pathogenic bacteria with fungi in chronic sinusitis. Dosa et al examined mucus samples from ninety-six patients with chronic sinusitis and compared them to samples from fifty healthy controls. Of the ninety-six patients, thirty-four were infected with typical aerobic pathogenic bacteria, the majority of these with two to three simultaneous infectious agents. The most common infecting bacteria were *Staphylococcus aureus*, *Escherichia coli*, *Klebsiella pneumoniae*, *Streptococcus pneumoniae*, and *Haemophilus influenzae*. Seventy-nine of the ninety-six patients had yeasts and molds in their mucus, with most patients having three to five simultaneous colonizations. *Candida albicans*, other *Candida spp.*, *Aspergillus spp.*, *Cladosporium spp.*, and *Penicillium spp.* were most commonly found. IgE-mediated hypersensitivity to fungal allergens was not present in the majority of patients. In the control group, no pathogenic aerobic pathogens were isolated, and fungi were detected in only 44% of the samples (Dosa et al).

Traditional herbalism

Traditional herbalism may offer superior therapeutic agents to the drug used in the above trial. Sinus infection accompanied by multiple infectious agents, including pathogenic bacteria as well as fungi, may respond to any of several botanical medicines noted for topical broad-spectrum antimicrobial activity. Many herbs possess both antibacterial and antifungal properties. In addition, the same or other herbs may have top-

ical anti-inflammatory or anti-allergic effects. Simple herbal formulas of these topical herbs may be applied intranasally through a spray or a neti pot. Some of the best candidates are listed below. Note that chronic sinusitis appears in traditional herbal literature as a subset of the condition chronic nasal catarrh.

Some herbs applied intranasally for chronic sinusitis in North American history

<i>Abies canadensis</i>	Hemlock spruce
<i>Anemopsis californica</i>	Yerba mansa
<i>Calendula officinalis</i>	Pot marigold
<i>Hydrastis canadensis</i>	Goldenseal
<i>Sanguinaria canadensis</i>	Bloodroot

Some herbs applied by other routes

<i>Echinacea angustifolia</i>	internal
<i>Thuja occidentalis</i>	inhalation
Plants containing camphor	inhalation

Yerba mansa

Anemopsis californica (yerba mansa) is a plant of the Native Americans of the American Southwest. It was used there by at least ten tribes across its range, taken internally as well as externally to disinfect various wounds, ulcers, and to treat skin inflammations (Moerman). It is still used for these purposes by the people in that region, and specifically used externally for fungal infections such as athlete's foot (Moore).

Yerba mansa was introduced into Eclectic medical practice by Dr W.H. George of California during the 1870s and remained in the major Eclectic texts until the demise of that profession in the 1830s (Felter and Lloyd; Felter; Ellingwood). A specific formula used to treat sinusitis by a Dr. Munk of California is reported. Ten to thirty of drops are added to a dram of glycerine in a two ounce spray bottle, and then water added to fill the jar. The spray is applied every few hours. Note that the glycerine reduces the irritating effect of the alcohol in the tincture, but adding larger amounts of glycerine may be irritating in itself. This has been observed clinically.

Anemopsis roots contain about 5% of volatile oil. The total oil and several of its chief constituent components have been shown to possess broad spectrum antimicrobial properties, including specific

antifungal properties in laboratory tests. (Acharya and Chaubal; Meepgala et al; Shin and Kang; Patnaik et al; Edris and Farrag). One constituent, linalool, was effective against 10 of 12 fungal organisms it was tested against (Patnaik et al).

Berberine-containing plants

Berberine-containing plants such as *Hydrastis canadensis* (goldenseal), *Coptis spp.* (goldthread), *Mahonia spp.* (Oregon grape root), and others have been used as topical disinfectants in ethnobotany, folk medicine, medical herbalism, and medical practice in the past. *Hydrastis* has specifically been used as a snuff or spray for chronic sinusitis.

Hydrastis extracts have strong antimicrobial properties (Mahady et al; Scazzocchio et al), and its constituent berberine has broad-spectrum antimicrobial properties, including action against a wide variety of fungi (See Table 1).

Usnic acid and other lichen metabolites

Usnic acid is widely present in lichen species, not just the *Usnea* genus that it was named for. For instance, the usnea look-alike of the Pacific Northwest forests, *Alectoria sarmentosa*, contains more usnic acid than the usnea species. Other lichen genera containing usnic acid include *Cladonia*, *Lecanora*,

Ramalina, *Evernia*, *Parmelia*, and others. Usnic acid is one of many lichen metabolites with antimicrobial properties, which are also distributed widely in usnea and other lichen species. Aleptosarmentin and physodic acid from *Alectoria*, atranorin and lobaric acid from *Stereocaulon spp.*, salazinic acid from *Parmelia saxatilis*, and protolichesterinic acid from *Cetraria islandica*, have all been shown to possess antimicrobial properties.

Note that usnic acid and plants containing it may cause contact dermatitis in some individuals, fewer than 1% of individuals tested in one study (Dahlquist and Fregertl; Thune et al).

Solubility of usnic acid is poor in both water and alcohol, though empirically teas and tinctures of *Usnea* species appear to be active against topical fungal infections. The narrow rather than broad-spectrum antimicrobial activity may present a problem using these agents alone. In one case of otitis externa, an usnea product at first appeared to clear most of the infection, which then rebounded and the usnea had no effect. It appeared that the usnea-resistant organisms had fully colonized the ear.

Table 1

In vitro sensitivity of some microorganisms to berberine sulphate

Bacteria

- Bacillus cereus*
- B. subtilis*
- Corynebacterium diphtheria*
- Enterobacter aerogenes*
- Escherichia coli*
- Klebsiella spp.*
- K. pneumoniae*
- Proteus spp.*
- Pseudomonas mangiferae*
- P. pyocyanea*
- Salmonella paratyphi*
- S. typhimurium*
- Shigella boydii*
- Staphylococcus aureus*
- Streptococcus pyogenes*
- Vibrio cholerae*

Fungi

- Alternaria spp.*
- Aspergillus flavus*
- Asp. fumigatus*
- Candida albicans*
- C. glabrata*
- C. tropicalis*
- C. utilis*
- Cryptococcus neoformans*
- Curvularia spp.*
- Drechslera spp.*
- Fusarium spp.*
- Microsporium gypseum*
- Mucor*
- Penicillium*
- Rhizopus oryzae*
- Saccharomyces cerevisiae*
- Scopulariopsis*
- Sporothrix schenkii*
- Trichophyton mentagrophytes*

Amin et al; Johnson et al; Mahajan et al; Nakamoto et al.

Table 2

Some microorganisms inhibited by usnic acid

Gram positive bacteria

Enterococcus faecalis

Enterococcus faecium

Staphylococcus aureus

Streptococcus mutans

Streptococcus pyogenes

Gram negative bacteria

Not inhibited

Anaerobic bacteria

Bacteriodes fragilis

Bacteriodes ruminicola spp. *brevis*

Bacteriodes thetaiotaomicron

Bacteriodes vulgatus

Clostridium perfringens

Propionibacterium acnes

Mycobacteria

M. aurum

M. avium

M. smegmatis

M. tuberculosis var *bovis*

M. tuberculosis var *hominis*

Yeast/fungi

Fusarium moniliforme

Penicillium frequentans

Verticillium albo-atrum

(Does not inhibit *Candida spp.*)

Ingolfsdottir; Cocchietto et al.

Case 1: Clinical correspondence

Within a year of moving to an altitude at 9,200 feet, I developed a chronic sinus condition where a “scab” (which appeared to be dried mucus) formed deep in my sinuses daily, and was eliminated through my mouth each morning.

An M.D. suspected an allergic reaction to my pet that was sleeping in my bedroom each night (the diagnosis was based on the appearance of my nasal passages; the M.D. did not suspect an infection). A bedroom air filter and humidifiers throughout the house were recommended along with not allowing my pet in the bedroom. A daily neti pot with a saline solution was also recommended (I added three-five drops of *Hydrastis canadensis* tincture to the saline solution approximately three-four days out of every seven days). Although I complied with the recommendations, the problem progressed and my right nostril developed painful sores. I sought a second opinion. This M.D. performed a nasal culture that revealed a *Staphylococcus aureus* infection and an antibiotic was prescribed.

Due to a past history of antibiotic use and consequent gastrointestinal problems, I didn’t take the antibiotic. Instead, I placed 15 drops of *Hydrastis canadensis* and 15 drops of *Anemopsis californica* in a two-ounce tincture bottle with glycerin and water. I administered a dropperful of the formula into each nostril every two hours when possible. I also administered the formula in a neti pot daily. The infection appeared to resolve within three-four days. The time I started the

formula coincided with a vacation to a very humid area at sea level, which I believe contributed to the healing. There were two pets at the place I stayed. Although the infection appeared to resolve, I continued using the formula sporadically throughout the vacation, which lasted seven days.

Upon return to the dry climate, high altitude, and my pet, the “scab” started developing again within a few days. The painful nose sores never returned. I started using the formula again, but stopped after a few days since my sinuses were too irritated and dry — the change from the humid climate to the dry climate was considerably irritating to my sinuses. When I stopped using the formula, the scab started forming again. To date, when I use the formula, the scab does not have a chance to fully form since mucous flow is stimulated. Without the formula, the scab develops; I believe the dry climate and high altitude are interfering with my body’s ability to overcome the infection. My pet is probably a contributing factor as well.

Editor's Note: The client continued the treatment occasionally for 3 months, when she developed a cold and rested for a week. In a classic healing crisis, a massive sinus drainage occurred. The condition resolved at that time completely and did not return.

Clinical Case 2: Clinical Correspondence

November 5, 2003

Email: I’d like to ask your advice on some medical stuff I’m dealing with. While in Thailand I picked

up acute sinusitis on top of chronic sinusitis all aggravated by allergic rhinitis. The background was really poor nutrition for a year, extremely bad air pollution for a year, and the sinusitis got set off when I forgot to wear my earplugs while swimming. I felt the water 'squirt' inside my ear and the next day I had blood in my ear and great gobs of green and yellow post nasal drip.

I took amoxicillin per an EENT M.D. for two weeks, but the sinusitis came back after a few days of stopping antibiotics. I then went to another Ear Nose and Throat guy in Thailand who gave me two weeks of Cipro, a mucolytic (Mucosalvyn), a decongestant (Maxiphed, which has I think ephedrine), and a steroid nasal spray. I'm in Staten Island now, off Manhattan, and just finished the two weeks of Cipro and am eating really well, breathing much better air, etc. but the sinusitis is back after stopping the 2 weeks of Cipro. So I just started taking the remaining two weeks of Cipro that he gave me (in case the first two weeks didn't work).

This is now my 5th week taking antibiotics, with another week after that to go! I've never taken drugs this long in my life, never been sick really. I'm wondering if maybe I might have some sort of fungal sinusitis that is antibiotic resistant. Maybe aspergillus. But, really, if you read the sinusitis literature you will see that some people need to take the antibiotics for 6 weeks or longer. So I'm not out of the ordinary. One M.D. on the net said sinus problems single handedly keep the pharmaceutical industry afloat. I believe it.

I know antibiotics interfere with many processes so I'm trying to compensate as best I can. I'm taking acidophilus. I just started taking Astragalus and Reishi to boost my immune system. I'm also taking B, C E, also CoQ10, Silymarin, Glutathione, Glutamine, Carnitine, DHEA, NADH, and a HCL/pesin/papain digestive aid. And staying really hydrated with pure water. Taking epsom salt baths. Nasal saline flushes.

Do you have any suggestions on helping me get these creepy germs out of my sinuses?

November 6, 2003

Reply, Email: It has emerged in research that chronic sinus infection are almost always fungal in nature, which explains why antibiotics usually don't work. Actually most are mixed infections with both fungus and, about a third of the time, a bacterium or two also present. Of course it is normal to find all kind of bacteria and other bugs in there, so there is always the ques-

tion of host resistance, like why did *these* bugs get out of hand. You seem to have corrected the underlying weakness with your change of locale and the supplement regime you are using.

Sinusitis is very easy to treat with herbs, because the chief herbs used kill almost any microorganism on contact. The best two are goldenseal and yerba mansa. Myrrh might be used if Yerba mansa is not available where you are. The recipe is as follows (don't dink with it, it works well and if you alter it you might be running for the neti pot to deal with the burns in your nose).

Get a two-ounce bottle, put 1 dram (1/8 ounce) of vegetable glycerine in the bottom. Into that put 15 drops each of tinctures of goldenseal and yerba mansa. Then fill the bottle with water and shake. Use a spray bottle to spray the stuff up into your nose. A mister might work but a true nasal spray bottle works much better. I have resorted sometimes to buying a nasal spray bottle at the store, and emptying it out of its commercial stuff to use it for this purpose. Don't omit the glycerine, it keeps the alcohol from burning, but don't use too much either, because it also can irritate the mucous membranes if too concentrated. Typical results are clearing of the infection in a day or two.

November 10, 2003

Reply, Email: Sinusitis better thanks to you, a gentleman and a scholar (with myrrh, not yerba mansa, couldn't find any yerba mansa).

References

- Acharya RN, Chaubal MG. Essential oil of *Anemopsis californica*. *J Pharm Sci*. 1968 Jun;57(6):1020-2.
- Amin AH, Subbaiah TV, Abbasi KM. Berberine sulfate: Antimicrobial activity, bioassay, and mode of action. *Can J Microbiol* 15: 1067-76, 1969.
- Bent JP 3rd, Kuhn FA Diagnosis of allergic fungal sinusitis. *Otolaryngol Head Neck Surg* 1994 Nov;111(5):580-8.
- Clarke SR, Kreutziger KL Allergic fungal sinusitis. *J La State Med Soc* 1998 Jun;150(6):248-52.
- Cocchietto M, Skert N, Nimis PL, Sava G. A review on usnic acid, an interesting natural compound. *Naturwissenschaften*. 2002 Apr;89(4):137-46.
- Dahlquist I, Fregert S. Contact allergy to atranorin and perfumes. *Contact Dermatitis* 6:111-119.
- Dosa E, Doczi I, Mojzes L, Molnar EG, Varga J, Nagy E Identification and incidence of fungal strains in chronic

- rhinosinusitis patients. *Acta Microbiol Immunol Hung.* 2002;49(2-3):337-46.
- Edris AE, Farrag ES. Antifungal activity of peppermint and sweet basil essential oils and their major aroma constituents on some plant pathogenic fungi from the vapor phase. *Nahrung.* 2003 Apr;47(2):117-21.
- Ellingwood, F. *American Materia Medica, Therapeutics and Pharmacognosy* (1919) [www.swsbm.com/Ellingwoods/Ellingwoods.html].
- Fabry W, Okemo PO, Ansorg R. Fungistatic and fungicidal activity of east African medicinal plants. *Mycoses.* 1996 Jan-Feb;39(1-2):67-70.
- Fabry W, Okemo PO, Ansorg R. Antibacterial activity of East African medicinal plants. *J Ethnopharmacol.* 1998 Feb;60(1):79-84.
- Feger TA, Rupp NT, Kuhn FA, Ford JL, Dolen WK Local and systemic eosinophil activation in allergic fungal sinusitis. *Ann Allergy Asthma Immunol* 1997 Sep;79(3):221-5.
- Felter H.W. and Lloyd J.U. *Kings American Dispensatory* (1898) [www.ibiblio.org/herbmed/eclectic/kings/main.html].
- Felter, H.W. *The Eclectic Materia Medica, Pharmacology and Therapeutics.* (1922) [www.swsbm.com/FelterMM/Felters.html.]
- Ingoldsdottir K. Molecules of Interest: Usnic Acid *Phytochemistry* 2002;61(7):729-736.
- Johnson CC, Johnson G, Poe CF. Toxicity of alkaloids to certain bacteria. *Acta Pharmacol Toxicol* 8:71-78, 1952.
- Mahady GB, Pendland SL, Stoia A, Chadwick LR In vitro susceptibility of *Helicobacter pylori* to isoquinoline alkaloids from *Sanguinaria canadensis* and *Hydrastis canadensis*. *Phytother Res.* 2003 Mar;17(3):217-21.
- Mahajan VM, Sharma A, Rattan A Antimycotic activity of berberine sulphate: an alkaloid from an Indian medicinal herb. *Sabouraudia* 1982 Mar;20(1):79-81.
- Meepagala KM, Sturtz G, Wedge DE. Antifungal constituents of the essential oil fraction of *Artemisia dracunculus* L. Var. *dracunculus*. *J Agric Food Chem.* 2002 Nov 20;50(24):6989-92.
- Moerman DE *Native American Ethnobotany.* Portland, Oregon: Timber Press, 1998.
- Moore, M. *Medicinal Plants of the Desert and Canyon West.* Santa Fe: Museum of New Mexico Press, 1989.
- Nakamoto K, Sadamori S, Hamada T Effects of crude drugs and berberine hydrochloride on the activities of fungi. *J Prosthet Dent* 1990 Dec;64(6):691-4.
- Pattnaik S, Subramanyam VR, Bapaji M, Kole CR Antibacterial and antifungal activity of aromatic constituents of essential oils. *Microbios* 1997;89(358):39-46.
- Ponikau JU, Sherris DA, Kern EB, Homburger HA, Frigas E, Gaffey TA, Roberts GD.
- The diagnosis and incidence of allergic fungal sinusitis. *Mayo Clin Proc.* 1999 Sep;74(9):877-84.
- Ponikau JU, Sherris DA, Kita H, Kern EB. Intranasal antifungal treatment in 51 patients with chronic rhinosinusitis. *J Allergy Clin Immunol.* 2002 Dec;110(6):862-6.
- Scazzocchio F, Cometa MF, Tomassini L, Palmery M. Antibacterial activity of *Hydrastis canadensis* extract and its major isolated alkaloids. *Planta Med.* 2001 Aug;67(6):561-4.
- Shin S, Kang CA. Antifungal activity of the essential oil of *Agastache rugosa* Kuntze and its synergism with ketoconazole. *Let Appl Microbiol.* 2003;36(2):111-5.
- Thune P, Solberg Y, McFadden N, Staerfeld F, Sandberg M (1982). Perfume allergy to oak moss and other lichens. *Contact Dermatitis* 8:396-400.

Bastyr ad

West Nile from page one

population of 56 students and faculty at the Rocky Mountain Center for Botanical Studies, five individuals had contracted the disease by August 15th, with a characteristic pattern of headache followed by the slow onset of low-grade fever and eventually a rash. In addition, I have treated two patients from outside that community, and received case studies or brief reports of eighteen others.

According to the CDC (see the accompanying table), 80% of people infected report no symptoms or do not go to the doctor. Twenty percent have mild symptoms, and less than 1% of these have severe symptoms. Typical mild symptoms include fatigue, headache, body aches, low-grade fever (less than 1 degree elevation), with a skin rash and/or swollen lymph glands developing later in some cases. Exhausted or weak individuals may have more severe expressions of these symptoms.

The symptoms of severe infection (West Nile encephalitis or meningitis) include severe headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, and paralysis. It is estimated that 1 in 150 symptomatic patients with the West Nile Virus will develop a more severe form of disease. The actual rate of such complications may be much less than this if the 200,000 figure for infected individuals in Colorado suggested by the state department of Health is accurate, and there have been fewer than 10 deaths in the state. The mortality rate from other diseases such as influenza is significantly higher than this (see box on page 9).

West Nile vs Influenza

As of December 1, 2003, Colorado had officially reported 2,500 cases of West Nile Fever with about 500 cases of meningitis or encephalitis, and 45 deaths. Unreported low-grade infections may have topped 200,000 according to the Colorado Department of Health. The mortality rate is thus probably less than 2.3 cases per thousand *infected*. By comparison, mortality from complications of influenza are 20-45 per 100,000 *total population* in any one year. Between 600 and 800 individuals typically die of influenza per year in Colorado. From the above estimate, the total mortality from West Nile Fever *with 100% infection* in Colorado would be less than 1,000. Unlike influenza, West Nile virus is not known to mutate easily, and infection presumably confers life-long immunity.

Encephalitis

West Nile Fever becomes serious in immune-compromised or otherwise weak patients who develop encephalitis. Death can result from swelling of the brain and spinal cord. The normal presenting symptoms of mild West Nile Fever may overlap with symp-

From the Centers for Disease Control

West Nile Fever

Mild Infection

Most West Nile Virus infections are mild and often clinically unapparent. Approximately 20% of those infected develop a mild illness (West Nile fever). The incubation period is thought to range from 3 to 14 days. Symptoms generally last 3 to 6 days.

Reports from earlier outbreaks describe the mild form of WNV infection as a febrile illness of sudden onset often accompanied by **malaise, anorexia, nausea, vomiting, eye pain, headache, myalgia, rash, lymphadenopathy**. The full clinical spectrum of West Nile fever has not been determined in the United States.

Severe Infection: Encephalitis

Approximately 1 in 150 infections will result in severe neurological disease. The most significant risk factor for developing severe neurological disease is advanced age. Encephalitis is more commonly reported than meningitis.

In recent outbreaks, symptoms occurring among patients hospitalized with severe disease include **fever, weakness, gastrointestinal symptoms, change in mental status**

A minority of patients with severe disease developed a maculopapular or morbilliform rash involving the neck, trunk, arms, or legs.

Several patients experienced severe muscle weakness and flaccid paralysis.

Neurological presentations included ataxia and extrapyramidal signs: cranial nerve abnormalities, myelitis, optic neuritis, polyradiculitis, seizures

See current maps at http://westnilemaps.usgs.gov/usa_avian.html and current information at

toms of encephalitis, especially the headache. Five of the twenty-five patients reviewed showed mild personality changes in the early stages of the illness, including uncharacteristic anger followed by a brief episode resembling major depression in two of them. One of these patients, aged 53, reported brief episodes of double vision, stiff neck, and backache, but did not develop any more severe neurological symptoms or any fever above 99.5. In actual West Nile encephalitis, neurological changes may be permanent. One of the twenty-five patients was hospitalized with gait disturbances and other neurological symptoms, and another, not hospitalized, still had mild symptoms resembling multiple sclerosis 60 days after the onset of the disease

The CDC states that "The full clinical spectrum of West Nile fever has not been determined in the United States," and many practitioners are not prepared to recognize the symptoms of mild disease. Reviewing the twenty-five local cases, the mild illness occurs in the following pattern:

All patients continued to work at least part time throughout the episode. The chief complaint in each case was the persistent headache, which lasted from 3-8 days, worse in the afternoon, and severe enough to interfere with sleep.

Stage 1: Fatigue, slight disorientation or sense of unreality, cloudy thinking. 3-7 days.

Stage 2: Mild headache, appetite loss, mild fatigue. No fever. 3-7 days.

Stage 3: Headache more pronounced, nausea. Might call in sick, or might go to work taking medications for the headache. Mild muscle aches and spasms. 1-4 days.

Stage 4: Low-grade intermittent fever (in the 99s), gets worse as the day goes on, more pronounced in the late afternoon. Appearance of slight symptoms of sore throat in 7 cases, mild swollen glands in neck in 3 cases. Swollen glands in armpits in 1 case. 1-3 days.

Stage 5: Appearance of a rash. This is a non-painful, non-itchy rash, and just some slight small red spots on the skin. This was very distinct and dramatic in several patients, on back, abdomen, arms, legs, worse on covered parts and lower body parts. Nothing on face or neck. Several patients had a slight rash in the same pattern, but it was so mild that they did not notice it until someone pointed it out. In one case, a woman only had a few red spots under her watchband. 3

patients who had noticed inflamed mosquito bites on their neck, developed the full symptoms of the disease, but the rash was confined to the neck and surrounding area. Three-four days to disappearance of the rash. Two patients who did not have a rash had the lymph node swelling. A pdf file with high resolution photos of the rash in several patients may be found at:

medherb.com/West-Nile-Rash.pdf

Stage 6: Exhaustion and recovery. Recovery may be complex, with bouts of fatigue and headache recurring for 3-6 weeks. Four of the twenty-two patients appeared to be completely over the illness, and later relapsed with a more severe fever, with 7-20 days between apparent recovery and relapse.

Stage 7: Relapse

Many of the patients still reported periodic bouts of fatigue, cloudy thinking, or headache as long as ninety days after apparent resolution.

Diagnosis

The above sequence is not common in widespread viral illness, and the presence of the lethargy, headache, and eventual rash may be a presumptive diagnosis. The test commonly used can have false negatives. Most of the 25 patients above were not tested. Three tested positive. Three others had the typical symptoms, but tested negative, even after appearance of the rash. One of these failed to recover, developed neurological problems, was hospitalized, and a second test was positive about ten days after the first.

Treatment strategy

Remembering that we treat people, not diseases, and because the presentation of West Nile Fever can be varied, there is probably no single treatment. The strategy should probably be:

- a) Support normal immune resistance to viral infection
- b) Treat the headache, considering both relaxants for rth tension and mild anti-inflammatories.
- c) Treat the presenting circulatory and fever symptoms according to their nature
- d) Support with demulcent tonics and fluids; and
- e) Tonify in the post-fever stage
- f) Rest and relaxation are important. Most individuals continue to go to work, but intensity of stress and failure to rest properly appears to be

the best indicator of failure to recover rapidly or of more serious relapse.

Cases 1-2 Basic presentation

In two patients, one the low-grade intermittent fever, the headache, and the rash were apparent, and the diagnosis made, I used the following formula.

Symptom picture: Headache, neck and back tension, tense choppy pulse, skin hot and dry, very recent emergence of a non-painful-non itchy rash, low grade intermittent fever. Fever and headache worse in afternoon through bedtime. Slight sore throat with slightly painful glands.

Eupatorium perfoliatum Boneset 20 drops

Lobelia inflata (acid tincture) Lobelia 20 drops

Paeonia lactiflora Peony 20 drops

Actea (Cimicifuga) racemosa Black cohosh
20 drops

Thuja occidentalis Western Red Cedar 20 drops

Ligusticum porteri Osha 20 drops

Echinacea angustifolia Echinacea 20 drops

In: *Sambucus nigra* syrup Elderberry 1 ounce

Add water to make 4 ounces

Dose: 1/2 - 1 ounce, tid during day plus 1 ounce at bedtime

The boneset, lobelia, and elderberry are all classic relaxant-diaphoretics, relaxing peripheral tension and allowing improved ventilation through the skin. They may also help with tension headache. Peony root is a sedative antispasmodic. Black cohosh was included for the sore throat and emerging rash, per its traditional Chinese indications. It would have been omitted in a deficiency heat pattern. The thuja, osha, and echinacea were included to strengthen host resistance against the virus. The osha and thuja in these doses are also slightly stimulating diaphoretics. In both cases the formula gave almost immediate relief and relaxed the headache, physical tension, and tense pulse, and induced very gentle diaphoresis on three successive nights, and allowed natural deep sleep.

Case 3 Periodic recurrence

Another patient was bedridden with a recurrence of high fever several weeks after the apparent resolution of the illness, and after 2.5 days of fever had difficulty recovering his strength. A Taiwanese herbalist prescribed a formula composed of spleen and chi tonics as the chief herbs, along with a chi gong exercise, and

told him his condition was "like malaria." Several days later, the headache and malaise lingered and I prescribed the following.

Ligusticum porteri Osha root, whole

Echinacea angustifolia Dried root

Powder the herbs and decoct in hot honey. Let cool to make a thick paste.

Dose: 1 tsp to 1 tbs four times a day.

Second prescription

A prepared powdered product of reishi mushroom (*Ganoderma lucidum*) (People's Herbs)

1/2 tsp, with warm food, twice a day for 3 days.

His condition rapidly resolved.

Case 4 Lingering illness

In a patient with lingering and remitting mild symptoms after one month, the following produced rapid recovery

Ligusticum porteri Osha root, whole 4 parts

Echinacea angustifolia Echinacea 4 parts

Paeonia lactiflora Peony root 4 parts

Glycyrrhiza uralensis Licorice root 2 parts

Cinnamomum zeylanicum Cinnamon 1 part

Eugenia caryophyllum Clove 1 part

medherb.com

- Online herbal bookstore with book reviews
- Annotated links
- Adverse Effects forum
- Discussion forum
- Search site by keywords
- Electronic newsletter
- Online plant walk
- Online subscription renewal

Case Five

Herbalist: Cheryl Watson, Denver, CO

Ht: 5'5" **Wt:** 135 **Sex:** F **Birthdate:** 5-14-83

Chief Complaint: Diagnosed with West Nile Virus

Other Complaints: Extreme fatigue

How would you rate your specific condition today?
(1-10: 1=very bad, 10=no symptoms) 2

How would you rate your overall health today? (1-10:
1=poor, 10=excellent) 3

How would you rate your stress level today? (1-10:
1=very stressed, 10=no stress)

Why? 1, because I have no health insurance and all my doctor will do to help me is to tell me to take Tylenol if my head hurts.

Current Medications: None

History of Illness:

Chief Complaint: West Nile Virus presenting with fever, headache, extreme fatigue, sore muscles (neck, back, spine), photophobia, back pain, mood alteration consisting of depression, hopelessness, anger, lack of focus and distractibility. A definitive body-wide rash developed 6 days after onset of symptoms.

Headache: P: Head Q:Pounding R:No S:7 T:Continuous

Other Complaints: Muscle Pain P:Back, neck and spine Q:Sore R:Np S:9 T:Continuous

Skin: Pale and cold, sensitive to cold; poor circulation- legs turn blue and splotchy

Head: Hair dry (washes once per week). Light headed upon standing with balance problems.

Eyes: Blurry, can't focus at night and when shifting focus.

Ears: Unstable balance

Nose & Sinuses: Slightly clogged sinuses.

Mouth & Throat: Mouth dry, throat irritated, gums irritated when flossing, has oral herpes.

Respiratory: Sinuses slightly clogged, irritated throat.

Cardiovascular: BP and pulse rate very low. Patient reports that BP may have been 85/52 at time of doctor

visit. Tachycardia at night and with certain thoughts. Usually has cold hands, feet and derriere.

Energetics: Pulse was weak at first, then increased in strength. Her tongue is of good color, with no coating or cracking. It has scalloping along the edges and quivers.

Psychological: This young woman is depressed and feels like she is "flat-lining" at best. She feels as if she has no energy and sleeps all the time. She is irritable and impatient with mood swings.

Client assessment: The client feels that her condition results from "energetics" and emotional stressors.

Herbalists Thoughts: Although the history is complex for such a young person, the diagnosis is straightforward. The confusing part is determining whether or not the follow-up complaints are related to West Nile Virus or not.

Case analysis:

Acute West Nile Virus with associated pathological symptoms. The depression experienced, while also a symptom of West Nile, may be associated with deficient liver clearance. Broad-spectrum micronutrient and EFA deficiencies are present. Gas and bloating coupled with mood swings and energy issues indicate a possible underlying food allergy.

Her underlying constitution appears to be one of deficiency, with cold hands and feet, poor circulation, pale skin, etc. The overall energetics of the client are cold and dry.

Tongue scalloping indicates liver issues and tongue trembling notes a present infection.

Pulses show lung issues.

Treatment Plan:

Rest, increased fluid intake and Epsom salt baths were recommended in conjunction with the following tincture taken at a rate of 2 droppersful every hour.

Formula

1 part *Ligusticum porteri* (Osha) Antiviral, antimicrobial, antipyretic, immunostimulant and warming diaphoretic

1 part *Echinacea spp.*: Antiviral, immunostimulant, alterative, antimicrobial, anti-toxin, vulnerary, lymphatic, clears heat and counters toxins

1 part *Hypericum perforatum* (St. John's Wort)
Cooling nervine, sedative, hepatic, alterative,
vulnerary, anodyne, antidepressant, clears heat
and counters toxins.

1 part *Eupatorium perfoliatum* (Boneset):
Antipyretic, diaphoretic, stomachic, stimulant,
antispasmodic, tonic.

½ part *Lomatium dissectum*: Antiviral,
immunostimulant.

½ part *Usnea spp.*: Antimicrobial, antipyretic,
clears heat and counters toxins.
HES 1/2 page

½ part *Zingiber officinalis*
(Ginger): Warming diaphoretic, stimulant.

The above formula was used
with the intention of provid-
ing a strong anti-viral action
with fever reduction and im-
mune support through the
process of clearing heat and
removing toxins.

Follow-up Appointment

The client reported that within
one day of using the tincture she
experienced “sweating episodes”
for about a day. The following
day her symptoms began to sub-
side and her health began to im-
prove. The overall health rating
has increased from 2 to 6. She re-
ports that her energy level is still
at a level of about 3.

Recommendations

1. Increase water intake to 3
quarts per day.
2. Take a multi vitamin/mineral.
3. Add 800 mg of Mg daily.
4. Drink 1 cup of the following
tea per day: *Rumex crispus*,
Taraxacum officinalis, *Mentha
piperita*.
5. 3 dropperfuls of the following
tincture 3 times per day:

1 part *Arctium lappa*

1 part *Rumex crispus*

1 part *Hypericum perforatum*

1 part *Ginkgo biloba*

1 part *Centella asiatica*

1 part *Uncaria tomentosa*

6. Flower Essence: Taken as needed: Mariposa lily,
Yerba Santa, Gentian, Larch, Mustard, White Chest-
nut.

Book Review

Herbal Vade Mecum

800 Herbs, Spices, Essential Oils, Lipids, Etc. Constituents, Properties, Uses, and Caution

by Gazmend Gazmend Skenderi, 2003

The Latin in the title of this book says to "take me with you," and the book is in fact a very useful quick reference for the professional or advanced student of herbalism. It is in the same niche as other quick reference books such as *Potter's Encyclopedia*, but so superior as to be in a class of its own for the following reasons:

- 1) It covers 800 herbs and related substances, including common herbs of commerce as well as the major herbs from British and German phytotherapy.
- 2) It has up-to-date and accurate details on plant chemistry, something missing in most general reference herbals, which, when they include plant constituents, usually just transcribe lists from other older books. Skenderi is himself a plant chemist, with access to the most recent research and reference works in natural product chemistry. I suspect this book will become a new affordable source book for others not able to do their own authoritative constituent homework.
- 3) Skenderi, being multilingual, has mined the wealth of herbal literature in German, Italian, and French as well as English.
- 4) The book contains reasoned judgements on safety considerations lacking in the other books in its class and contains better and more balanced information in this area than most other books devoted entirely to the subject. He frequently issues a caution for the general public but says the herb "may be used safely when directed by a trained professional," a welcome distinction in this kind of literature.
- 5) It accurately describes the *most important* actions and *most important* uses for the herbs, in a well thought-out section, instead of giving long lists of theoretical or minor actions copied uncritically from the usual laundry list of historical books.

I'll be using this as a textbook for my intermediate-level students at the North American Institute of Medical Herbalism. — Paul Bergner

The book can be purchased by check or money order (payable to Herbacy Press) from Herbacy Press, 144 Wheaton Place, Rutherford, NJ 07070. US

Orders: \$24.95 + \$2.95 (S&H; delivery: 3-8 business days) \$24.95 + \$4.95 (S&H; delivery: 2-3 business days) New Jersey residents have to add 6% to the book price. International Orders: \$24.95 + \$14.95 (S&H; delivery 7-10 business days).

Traditional Medicine

Boneset and Influenza

Historical notes and commentary

by Paul Bergner

Abstract. The herb *Eupatorium perfoliatum*, boneset, has been used to treat influenza and other viral respiratory infections continuously in the U.S. since before first contact with the Europeans. A review of this use by physicians of the nineteenth and early twentieth centuries is reviewed, with commentary, along with their general recommendations for prevention and care of influenza.

With a severe influenza epidemic sweeping the country, it seems appropriate to review the clinical uses of *Eupatorium perfoliatum* for influenza on North American medical history.

Excerpts from "A Treatise on *Eupatorium perfoliatum* – Drug Treatise Number XXXI." Lloyd Brothers Pharmaceutical Company.

Since the early settlement of America, *Eupatorium* has been employed in medicine, having been introduced by the Indians, who used it in fevers and colds. Over one hundred years ago, before there was in print an American materia medica, *Eupatorium* was through this introduction, a favorite of observing American physicians. Its usual preparations at that early date were, naturally, decoctions and infusions, both of which, from their very nature and crudity, were severe in action as well as disagreeable in taste. The word "nasty" applies to them without reserve, and yet their popularity in colds and influenza remained undisturbed.

The first work in covers touching American medicinal plants, Schöpf, 1785, gave a setting to *eupatorium*. This was followed, in 1798, by the *Collections* of the celebrated Prof. B.F. Barton, of the University of Pennsylvania, then an authority second to none on American medicines. The drug was recognized by such authors as Thacher, 1810, Bigelow, 1817, W.P.C. Barton, 1818, and Chapman, 1819, and under their commendations it passed naturally into the first *Ameri-*

can Pharmacopoeia, 1820, as well as the first edition of the *United States Dispensatory*, (first edition) 1830, the *American Dispensatory* (first edition) 1852, and the *National Dispensatory* (first edition) 1879. Probably every work that gave thoughtful attention either to American medicine or its materia medica, including all publications devoted to domestic or home treatment, for over one hundred years, described Eupatorium as a remedy serviceable in influenza.

Schöpf, 1787, author of the first botanical treatise on America's medicinal plants, early explorer of America, states that Eupatorium was employed by Indians as a remedy in fever and cough. **Schöpf's Materia Medica Americana Potissimum Regni Vegetabilis, 1787**

"To catarrhal affections, in the early stage, our medicine is said to be well adapted. The people of the country prescribe it freely in such complaints, and repose no slender confidence in its powers. Not the least memorable application of the article was of this nature. Thirty years ago we had throughout the United States, a singular catarrh, or species of influenza, which, in consequence of the sort of pain attending it, came to be denominated the **break bone fever**. The eupatorium, acting as a diaphoretic, so promptly relieved this peculiar symptom, that it acquired the popular title of **bone-set**, which it retains to the present moment." **Chapman's Discourses on the Elements of Therapeutics and Materia Medica, Volume II, 1819.**

"The article is very nauseatingly bitter to the taste. By different methods of preparation and management, it may be made to produce a variety of effects. A strong tea prepared by long steeping, or by boiling, and taken freely while warm, may, according to the quantity, be made either to produce perspiration and assist in raising phlegm from the lungs, or to purge, or to vomit. Taken cold, and in more moderate quantity, it gives strength. In one or other of these methods, it may be useful in common cold, influenza, malignant pleurisy, low fevers, agues, indigestion, and weakness in general, being managed as above directed, according to the effect desired." **Hand's House Surgeon and Physician, 1820**

"This plant may be so managed as to act as a tonic, a sudorific, a laxative or an emetic, as required. No other tonic of equal activity can be exhibited in fevers, with less danger of increasing excitement or producing congestion; the only objection to its general use is its nau-

seous and disagreeable taste." **Rafinesque's Manual of the Medical Botany of the United States, 1828**

"... It is of a sweating nature, and may be made into a strong tea, of which you may drink freely on going to bed. If you have a slight cold, you may generally get rid of it in this way, by being a little careful the following day. The blows of this herb, if taken freely, will operate as an emetic. . . ." **Bowker's Family Instructor, 1836**

"Good in coughs and colds and if given freely in the early stages of fever . . . it rarely fails of removing the disease. It is an excellent diaphoretic." **Sperry's Family Medical Adviser, 1847**

"Prof. Lee says: 'With regard to the use of this plant in influenza, whether sporadic or epidemic, we have proved it possessing great efficacy – relieving the pain in the back and limbs, as well as the general lassitude, with great promptness; for although in this disease the skin is often bathed in perspiration, yet it is of a morbid character – the surface being pale, and morbidly sensitive, and the excretion of a passive kind. When the secretions are of this morbid nature, and the pulmonary system is involved, the Boneset has proved in our hands a most valuable remedy, inducing a health and free perspiratory discharge, and replacing the chilly or febrile sensations with a uniform or health glow.'" **Hale's New Remedies, 1867**

"Eupatorium was a favorite medicine of the Indians of North America; it has always been a popular remedy in the United States. . . . When used in the treatment of influenza it should also be administered in the form of an infusion made in the proportion of an ounce [of herb] to sixteen ounces of boiling water; and in doses of a wineglassful, to be drunk warm every half hour, the patient remaining in bed the whole time. After four or five doses profuse perspiration, and sometimes, vomiting, is produced, when relief is at once obtained; after which the medicine should be given in small and repeated doses. **Bentley and Trimen's Medicinal Plants Volume III, 1880.**

"Dose:– If to produce emesis, one teacupful should be taken every fifteen minutes. One half teacupful every half hour produces perspiration. One teacupful, cold, every hour, acts as a laxative, and a half a teacupful, every two hours, is a tonic." **Hale's New Remedies, 1867**

As a suggested prophylactic in influenza– 'An ounce of prevention is worth a pound of cure.' During

Continued on back page

Classifieds

Tincturepress.com Original tincture press designs. Press from one cup to five gallons marc. Contact Krista@tincturepress.com. Longevity Herb Company. Fabricating tincture presses since 1993. 1549 West Jewett Boulevard. White Salmon, WA 98642. (509) 493-2626

Alchemy Botanicals is an herbal apothecary in Ashland, Oregon. Over 300 organic and wildcrafted bulk herbs, essential oils. Wide selection of herbal skincare products and medicine making supplies. Herbal formulations from Herbalist and Alchemist, Avena Botanicals, Wise Woman Herbals, many others. Over 200 of the finest quality bulk tinctures and glycerites for you to create your own medicinal formulas. Practitioner discounts available. Call today for a free catalog. Shipping anywhere. Telephone 541-488-4418. Fax 541-488-4419. Email: herbs@alchemybotanicals.com. Alchemy Botanicals, 253 E Main Street, Ashland, OR 97520. Open 7 days a week.

Blue Ridge School of Herbal Medicine. Offers a 5-month, 250-hour Herbal Training Program focusing on holistic Chinese/Western diagnosis and the self-sufficient arts of plant identification and medicine making. Also offering a weekend exploration of Appalachian plants, "Herbal Safari" April 25-27, 2003. (828) 275-6221, coreypine@bigfoot.com, or P.O. Box 213, Asheville, NC 28802

Discover herbal medicine with Wise Woman Ways. You will love Susun Weed's healing philosophy. Workshops near you, live-out apprenticeships, shamanic apprenticeships, correspondence courses, books, and videos. Information \$1. P.O. Box 64MH Woodstock, NY 12498

Healthcalls.net website for herbal education and protocols for today's most challenging health issues: porphyria, Lyme, detoxing, balancing Th1 and Th2 cytokines, antibiotic alternatives using essential oils, and training videos. Hart Brent, HealthCalls, 4287 Bayley Hazen Rd. West Danville, VT 05873 (802) 684-2570

Northeast School of Botanical Medicine. Comprehensive, practical training in clinical herbalism. Four programs offered. A six-month three days per week program; a seven month one weekend monthly course; Advanced Western Herbalism Intensive, and a traditional apprenticeship. Main instructor is 7song. Classes focus on constitutional diagnosis, plant identification, materia medica, first aid skills, student clinic, field trips, medicine preparation and formulation, anatomy and physiology,

and community centered herbalism. P.O. Box 6626. Ithaca, NY 14851. 607-539-7172. www.7song.com

Australasian College of Health Sciences, (formerly Australasian College of Herbal Studies, USA), offers distance learning, online, Master Herbalist, Master Aromatherapist plus other complimentary medicine programs. ACHS is an accredited member DETC, Oregon State Licensed. CEU's for RN's, Pharmacists, Veterinarians, Naturopaths and LMT's. NCBTMB (Category A), ABMP, AMTA, Florida and Louisiana Board of Massage approved. Student Loans, approved for Veterans Benefits, Dantes affiliated, Liability Insurance. Call 800.487.8839. achs@herbed.com, www.achs.edu.

HerbalGram. Highly acclaimed quarterly journal is now a benefit of membership in the American Botanical Council starting at \$50/year for individuals. Call 512-926-4900 or visit www.herbalgram.org

The Herb Quarterly. A beautiful magazine dedicated to all things herbal—gardening, medicinals, crafts, folklore, alternative uses of herbs, and more. Rates: \$24/1 yr, \$45/2 yrs, \$60/3 yrs. Box 548MH, Boiling Springs, PA 17007.

Classifieds are \$1 per word, \$35 minimum

Medical Herbalism

Senior Editor

Paul Bergner

Editor-in-Chief

Jill Hoppe, CCH

Associate Editors

Sharol Tilgner, ND
Steven Dentali, PhD

Contributing Editors

Chanchal Cabrera, MNIMH
Deborah Frances, ND
Jill Stansbury, ND

Editorial and Advertising Offices

P.O. Box 20512
Boulder, Colorado 80308

Phone

303-541-9552
303-415-9196 (fax)

Internet

bergner@medherb.com
<http://medherb.com>

Copyright 2003 North American Institute of Medical Herbalism, Inc

Boneset from page seventeen

the present (1918) epidemic of what is known as "Spanish Influenza," Eupatorium was employed both in the course of treatment of the disease, and as a preventive. Five employees in one manufacturing establishment were afflicted in one day. At once, a prescription was filled and given each of the large force remaining, with the direction to begin taking it immediately. None were thereafter afflicted..

Some Influenza Suggestions

Put your patient to bed and keep him there even beyond the period when safety seems assured.

Don't ply him with whiskey, quinine, aspirin, and cola-tar depressants in repeated and full doses.

Don't over-medicate him with any kind of medication.

Beware of the reckless use of unproved serums and vaccines.

Reference

Lloyd JU and Lloyd CG. A Treatise on Eupatorium perfoliatum. Drug Treatise Number XXXI. Lloyd Brothers Pharmaceutical Company. 1918. Full text is available at http://www.herbaltherapeutics.net/herbal_therapeutics_library.htm

Commentary

The general influenza recommendations at the end of the above article may even more useful than the plant itself. Poorly managed influenza, when the patient gets up and back to work too soon, can readily result in a relapse and viral pneumonia. It may also lead to chronic post viral infection syndrome, with lingering debility for weeks, months, or even years.

Failure to fast during the febrile stage of the illness results in a longer duration of symptoms and in some cases will result in deterioration of the patient to a critical state, or to chronic viral syndrome afterwards.

Avoidance of immuno-suppressive agents during flu season may help with prevention or moderate the severity of the disease. Sugar and its analogues, food allergens, sleep deficit, and over-exercise are common causes of immune suppression. Most over-the-counter drugs used for influenza are also immuno-suppressive, including aspirin and non-steroidal anti-inflammatory drugs.

The influenza vaccine is controversial, in that it may in some cases confer immunity, in other be of no use, but in general depresses and disrupts the immune system. Those who have had the vaccine but get the flu anyway may have more severe problems.

---Paul Bergner

Subscription and Order form

(Fill in as many items as appropriate)

Name _____

Company _____

Street _____

City _____

State _____ Zip/Postal Code _____

Country _____

Telephone _____

Fax _____

Email _____

Visa/MC/Amex _____

Expiration Date ____/____

Call 303-541-9552

Medical Herbalism

P.O. Box 20512, Boulder, CO 80308

[Http://medherb.com](http://medherb.com)

U.S. Subscription

____ 1 year \$45.00 ____ 2 years \$80.00

Canada and Mexico

____ 1 year \$45.00 ____ 2 years \$80.00

North American Student

____ 1 year \$25.00 (photocopy of student i.d.)

Overseas

____ 1 year \$50.00 ____ 2 years \$90.00

Back Issues

(See pages 10-11)

____ Back issues at \$16.00 each = \$ ____ Total

Specify back issue numbers _____

Total order _____

(Cash, check, money order, or charge, U.S.Dollars)