

Adjunctive Care for Lyme Disease and Co-infections: A Naturopathic Perspective

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- 1) Common Obstacles to Curing Lyme Disease
 - a) Immune, Endocrine, Blood Sugar and Neurotransmitter imbalances
 - b) Gastrointestinal Disorders:
 - i) Candida and over growth of other pathogenic yeast, parasites and bacteria.
 - ii) Leaky Gut: Permeability of the intestines associated with Food sensitivities
 - iii) (primarily gluten and dairy, however a food intolerance assessment may need to be done).
 - iv) Just plain poor food choices
 - c) Biofilms: a fibrin and plasmin coating created so that parasites, bacteria and heavy metals can evade immune recognition and elimination.
 - d) Heavy Metal Toxicity: Primarily lead and mercury.
 - e) Environmental Toxicity
 - f) Excessive stress
 - g) Mold Toxicity
 - h) Viral Infections: Cytomegalovirus (CMV), Epstein Barr Virus (EBV) and Human herpesvirus 6 (HHV-6)
 - i) If the aforementioned are addressed effectively the healing process , will speed up and often create a strong enough vital force so that killing off the bugs is secondary.
- 2) Don't get Over-whelmed; Start with the Basics
 - a) Support Gut function
 - i) Healing or aggravation of disease starts the moment we put something in our mouth.
 - ii) An improperly functioning digestive tract is often the source of many of the body's ailments. Toxins produced by improperly digested foods, overgrowth of pathogenic bacteria and yeast and the endotoxins produced as the bacteria die off will worsen gut function and make the Lyme symptoms worse.
 - b) Determine if you have any food sensitivities and eliminate them.
 - (1) Gluten products and Dairy are two of the most common food groups.
 - c) Develop a Nutritional Plan
 - d) Drink lots of fluids that are non-caffeinated and non-alcoholic.
 - i) Create a variety of herbal tea blends that will support all the systems of the body, especially the organs of elimination.
 - e) Reduce Stress
 - i) Sleep, surround yourself with a good home, work and life environment, rest, meditation, gentle exercise and hot baths with detoxifying agents like Epsom salts and/or baking soda.
 - f) Take your food to the dump regularly and have daily Bowel movements.
 - g) Neglect these factors and watch the Lyme Symptoms flare!

3) Dietary Recommendations

- a) Eat organic, pesticide and anti-biotic free, locally grown foods as often as possible
 - i) These are higher in energetic vibrancy and nutrients.
 - ii) Join a local CSA or create a small vegetable garden.
- b) Limit alcohol, caffeine, natural sugars, packaged foods, salt (use sea salt or Celtic salt)
- c) Eliminate artificial colorings food additives and dyes, artificial sweeteners and refined sugars. Refined sugar can depress immune function for hours.
- d) Eat a whole food diet that is full of a variety of colorful
- e) Vegetables and Fruits
- f) Whole unprocessed/unfloured grains (gluten-free)
- g) Fermented foods including yogurt, kefir (goat, coconut, water buffalo, sheep), apple cider vinegar, sauerkraut, pickles etc.)
- h) Nuts and Seeds
- i) Beans and Legumes
- j) Free range meat and eggs
- k) Deep sea cold water fish and lake caught fish
- l) Sea Vegetables; rich in iodine and minerals
- m) Healthy fats: Avocados, coconut, olives, olive oil, sardines, mackerel and anchovies
- n) Chlorella rich foods: powerful chelating agents that will remove toxins parsley, purslane, cilantro, water cress, Green leafy vegetables, spirulina, blue green algae
- o) Cloves/Cinnamon/Cardamon/Ginger/Oregano/Chives/
- p) Garlic 1-2 cloves raw, uncooked garlic daily
- q) Thyme/Basil/Sage/Tumeric/Cayenne/Curries/Rosemary
- r) Start meals with herbal bitters, bitter food or 1TBS of organic Apple Cider Vinegar to ameliorate digestion. Bitters tasting foods and plants are often liver detoxifying herbs so they are an essential part of a daily routine.
- s) Take Probiotic daily, up to 100 billion organisms or eat fermented foods.

4) Important Herbal Allies

- a) *Allium Sativum* (Garlic): Anti-bacterial, anti-fungal, anti-parasitic, anti-spirochetal, breaks down biofilms, cardio-protective and immune support, CNS infections (easily passes the BBB)
- b) *Andrographis Paniculata* (Andrographis): Anti-bacterial. Anti-inflammatory, anti-malarial, anti-parasitic, anti-spirocete, cardio-protective, ameliorates cognition, supports the liver and decreases pain.
- c) *Artemisia annua* (Sweet Annie): Anti-malarial (anti-babesia), anti-parasitic, anti-viral, cardiovascular support, immune support
- d) *Astragalus membranaceus* (Astragalus): use in early stage only. Anti-bacterial, adrenal support, anti-oxidant, cardio-protective, immune support, liver, kidney and reproductive organ support

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- e) Beberine Rich plants (Coptis, Oregon grape root, barberry root, Golden seal root): Anti-bacterial, anti-fungal, anti-spirochete, Gastrointestinal support, Liver support, immune support
 - f) Chlorella: Binds endotoxins in the gut.
 - g) *Ocimum sanctum* (Holy Basil): anti-anxiety, anti-bacterial, anti-depressant, anti-inflammatory, adrenal support, immune support, improves cognition, improves energy, gastrointestinal support, Liver, Thyroid and Kidney support
 - h) Olive Leaf: anti-bacterial, anti-viral properties, anti-fungal, anti-yeast and anti-protozoal
 - i) *Polygonum cuspidatum* (Japanese Knotweed): Anti-microbial, Anti-spirochetal, anti-parasitic, anti-fungal, Anti-viral, anti-oxidant, anti-inflammatory (musculoskeletal and CNS) , Binds endotoxins, Cardioprotective improves cognitive function, decreases Herx reactions, immune support. High in Vit C and Resveratrol.
 - j) *Rhodiola Rosea* (*Rhodiola*): adrenal support, improves energy, anti-depressant, anti-inflammatory, cardioprotective, immune support, thyroid support, reproductive organ support.
 - k) *Schizandra chinensis* (*Schizandra*): Adrenal support, anti-depressant, anti-inflammatory, cardioprotective, ameliorates cognition, improves energy and sleep, supports liver, kidney, reproductive organs, support immunity
 - l) *Scutellaria baicalensis* (*Baikal Skullcap*): anti-oxidant, anti-bacterial, anti-inflammatory, immune support, anti-anxiety, liver support. Baikal skullcap was traditionally used in formula with *Smilax* and *Coptis* for late stage syphilis (Zhang)
 - m) *Silybum marianum* (*Milk thistle*): anti-oxidant, Liver support, improves cognition , anti-viral, protects against endotoxins
 - n) *Smilax* spp. (*Sarsaparilla*): anti-spirochete, arthritis, improves cognition, cooling anti-inflammatory, binds endotoxins in the gut, enhances excretion. useful for *Babesia* hemotoxins, immunomodulator, liver support
 - o) *Uncaria Tomentosa* (*Cat's Claw*): anti-inflammatory, analgesic, Immune support, Gastrointestinal support. Specific for arthritis and muscle pain. Helps to synergize the action of the anti-microbial and immune supportive herbs. I have found *Cat's Claw* to be most effective as a supportive agent for the other anti-microbials and immune enhancing herbs. Like a basket that holds the strength of the others and synergizes their action.
 - p) *Withania Somnifera* (*Ashwagandha*): anti-anxiety, adrenal support, anti-depressant, anti-inflammatory, anti-oxidant, anti-parasitic, anti-spirochetal, anti-tumor, cardioprotective, improves cognition, improves energy, ameliorates sleep, supports immune system, decreases pain, supports liver, reproductive and thyroid function (stimulate thyroid function).
- 5) Plants that can be easily grown and cultivated in our area that can treat Lyme:
- a) *Ashwagandha*, *Astragalus*, *Burdock*, *Calendula*, *Cayenne*, *Cleavers*, *Codonopsis*, *Dandelion*, *Echinacea*, *Eleuthero*, *Garlic*, *Ginkgo leaf*, *Gold Thread*, *Holy Basil*, *Japanese Knotweed*, *Hawthorne*, *Lavender*, *Lemon Balm*, *Lycopodium Clavatum* , *Oats*, *oregano*, *Milk Thistle*, *Scutellaria b*, and *Scutellaria L.*, *Sea weeds*, *Smilax Sp.*, *St. John's wort*, *thyme*, *White Pine*

6) Alternative Treatments

- a) Use heat therapy to kill off the bacteria.
 - i) Heat therapy – with daily elevation of core body temperature to 101.5 - 102.5 twice per day for 15-20 minutes, inhibits *Borrelia* reproduction and enhances effectiveness of the herbal or antibiotic treatment. Take care to hydrate the patient and replace lost minerals especially calcium, magnesium, and zinc.
 - ii) Saunas, hot tubs, and steam baths are probably the most effective methods for elevating body temperature.
 - iii) Hot baths combined with taking a diaphoretic tea (Yarrow, Elder Flower, Ginger) can be substituted.
 - iv) (David Winston 2007)
- b) Probiotics: Multiple Strain *Acidophilus*
- c) Supplements: Colostrum, Vitamin D3, IM B12 (Methylcobalamine), B complex, NAC, reduced Glutathione, Magnesium, Malic Acid, L-carnitine, Co- Q10, alpha lipoic acid, Vitamin C and bioflavonoids, Selenium and Omega Fatty Acids
- d) Biodynamic Cranial Sacral Treatments
- e) Capsaicin Cream: Topical analgesic
- f) Lumbrokinase, Nattokinase, garlic and Proteolytic enzymes destroy biofilms.
 - i) Walk gently with proteolytic enzymes between meals, as sensitive clients can “herx” to even small amounts. (R. Snow)
- g) Low dose Naltrexon: Modulates immune response, pain and helps the quality of sleep and mood.

7) Why reinvent the wheel?

- a) Look to formulas and protocols designed specifically to eradicate Lyme and Co-infections that have been well researched and time tested.
 - i) David Winston, Spirolyd Compounds
 - ii) Dr. Zhang, The Zhang Protocol
- b) Be aware that these protocols are specific only for treatment of the disease and not the other organ systems that are involved.
- c) Consider combining these protocols with the previously mentioned medicinal plants based on the patient’s needs and the specific medicinal properties and characteristics of the plant medicine.

8) LB and Co-infections: *Materia Medica*:

- a) Adrenal support: ashwagandha, astragalus, *Codonopsis*, *Eleutherococcus*, Holy basil, licorice, reishi, *rhodiola*, *schizandra*
- b) Anti-Anxiety: Ashwagandha, blue vervain, hawthorne, holy basil, linden, fresh milky oats, motherwort, reishi, skullcap,
- c) Anti-bacterial/Anti-microbial: *Andrographis*, Astragalus, Berberine containing herbs Garlic, Holy Basil, *Houttuynia*, Licorice
- d) Anti-depressant: Ashwagandha, Holy Basil, lavender, lemon balm (caution with hypothyroidism), *Rhodiola*, Rosemary, *Schizandra*
- e) Anti-inflammatory: *Andrographis*, Ashwagandha, Cat’s Claw, *Eleuthero*, Holy Basil, Ginger, Licorice, Reishi, *Rhodiola*, *Schizandra*, Teasel Root, Tumeric

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- f) Anti-fungal: Aloe, Berberine containing herbs, Garlic, Houttuynia, Grapefruit extract, Cardamon, Probiotics, Oregano, Cloves, Pau d'arco
- g) Anti-malarial: Andrographis, Artemesia annua, Neem, St. John's Wort
- h) Anti-parasitic/Anthelmenthic: Andrographis, Berberine containing herbs, Garlic, Cloves, Oregano
- i) Anti-spirochetic: Allium sativum (Garlic), Andrographis, Ashwagandha, Artemesia Annua,(Sweet Annie), Coptis chinensis, Houttuynia cordata, Neem, Scutellaria b, St. John's Wort, Oregon grape root (Berberis aquifolium), , and sarsparilla (Smilax glabra).
- j) Anti-Viral: Andrographis, Astragalus, Holy Basil, , Houttuynia,Japanese knotweed, Lemon Balm, Licorice, Olive Leaf, Reishi, Rhodiola, St. John's Wort
- k) Biofilms: Garlic, Lumbrokinase, nattokinase, proteolytic enzymes
- l) Blood sugar stablizers: Blueberries, Cinnamon, Ginger, Reishi
- m) Cardioprotective: Andrographis, Ashwagandha, Astragalus, Eleuthro, Hawthorne, Linden, Motherwort, Reishi, Rosemary, Rhodiola, Schizandra, Sweet Annie
- n) Cognitive enhancers (mental clarity, decreases brain fog): Andrographis, Ashwagandha, Bacopa, Eleuthro, Gingko, Holy Basil (combine with rosemary, bacopa and gingko),Lavender, Lycopodium Clavatum, Rhodiola, Rosemary, Schizandra, St. John'sWort
- o) Detoxifies neurotoxins: Algae, Andrographis, Burdock, Chlorella, Dandelion, Garlic, Milk Thistle, Reishi, Sarsaparilla, Sea weeds, Schizandra Don't forget your fiber!
- p) Improves energy/Reduces fatigue: Ashwagandha, Codonopsis, Eleuthro, Holy Basil, Rhodiola, Schizandra
- q) Gastrointestinal/Digestive support: Organic Apple cider vinegar, Astragalus, Bitters, Berberine containing herbs, Codonopsis, Cat's claw, Holy Basil, Goldenseal, Licorice Fermented Foods, Probiotics, Sea vegetables, Fiber, Slippery Elm
- r) Hepatoprotective and restorative: Andrographis, ashwagandaha, Astragalus, Berberine containing herbs Burdock, Dandelion, Holy Basil, Licorice, Milk Thistle, Reishi, Schizandra, Tumeric
- s) Herx Reaction: One explanation of the phenomenon is that inflammatory endotoxins are released from the dying organism and the greater the toxic load the greater the die off. Consider charcoal and betonite clay. See plants that detoxify neurotoxins, and support Hepatic, Kidney and Lymphatic function.
- t) Immunoprotective/ Immune Support:: Andrographis, ashwagandha, Astragalus, Berberine containing herbs, Cat's Claw, Codonopsis, Eleuthro, Holy Basil, Licorice, Olive leaf, Reishi, Rhodiola, Schizandra, Sweet Annie
- u) Kidney support: Ashwagandha, Astragalus, Holy Basil, Licorice, Reishi, Schizandra
- v) Lymphatics: Echinachea, calendula, cleaver, red root
- w) Nerve pain: St John's wort internally and externally, Mullein (facial nerve pain)
- x) Pain relievers: Andrographis, Ashwagandha (muscle pain) Kava Kava, Kudzu root (Pueraria lobata) – muscle spasms, stiff neck, achy muscles, Teasel Root (Dipsacus spp) Lyme Arthralgias, Willow Sp.

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- y) Improves Sleep: Ashwagandha, Codonopsis, Eleuthero, Lavender, Lemon Balm, Oats, Passionflower, Rhodiola, Schizandra, Skullcap
 - z) Reproductive support: Ashwagandha, Astragalus (menopausal sweats), Rhodiola, Schizandra (tonifies reproductive organs)
 - aa) Thyroid support: Hypothyroidism: Ashwagandha, Holy Basil, Rhodiola, sea vegetables, sea food
- 9) Additional Resources and References
- a) Buhner S.: Healing Lyme, Raven Press, 2005
 - b) Horowitz, Richard Herbs, Hormones & Heavy Metals: A study of CAM therapies in the Treatment of Chronic Lyme Disease
 - c) Snow Rebecca, MS, RH (AHG), CNS, LDN. Chronic Lyme Disease and Co-infections: Clinical Overview. Excellent review by a fellow herbalist!!!!
 - d) Winston D. and S. Maimes: Adaptogens: Herbs for Strength, Stamina and Stress Relief; Healing Arts Press, 2007
 - e) Winston D., RH (AHG) ©2006 Tick-Borne Diseases: Their Effective Treatment, Including the Use of Botanical & Complimentary Therapies
 - f) Zhang, Q and Zhang, Y. Lyme Disease and Modern Chinese Medicine Sino-Med Research Institute, 2006
 - g) Joseph J. Burrascano, Jr., MD, Advanced Topics in Lyme Disease Diagnostic Hints and Treatment Guidelines for Lyme and Other Tick Borne Illnesses; Sixteenth Edition Copyright October, 2008
 - h) Dr. Qingcai Zhang and Yale Zhang Lyme Disease and Modern Chinese Medicine: An Alternative Treatment Strategy, Developed by Zhang's Clinic Copyright © by Sino-Med Research Institute, 2006
 - i) www.dr-zhang.com or www.sinomedresearch.org/
 - j) www.igenex.com
 - k) www.ilads.org
 - l) www.lymeinfo.net
 - m) www.cvmdl.uconn.edu website for where and how to send tick to be accessed as an infected carrier.
- 10) Websites for Lyme Disease and Co-Infection specific herbal products:
- a) WWW.Herbalists and Alchemists (David Winston's products)
 - b) www.hepapro.com (Dr. Zhang's products)