Holistic Treatment of Lyme Disease

Stockholm, 02.10.2010
Holistic medicine is the art and science of healing that addresses care of the whole person - body, mind, and spirit.

The practice of holistic medicine integrates conventional and complementary therapies to promote optimal health, and prevent and treat disease by addressing contributing factors.

American Holistic Medical Association:
http://www.holisticmedicine.org/displaycommon.cfm?an=1&subarticlenbr=5#Medicine
What does holistic approach mean?

It is just like building a stable house... you need

- a foundation
- supporting walls (columns)
- a roof top
The foundation is based on

1. Medical history (anamnesis) of the patient, including special anamnesis types (e.g. homeopathy, etc.)

2. Traditional Diagnostic Tests
   => Laboratory testings
   => Physical and Technical examinations (ECG, ultrasound, etc.)
   => SPECT (single photon emission computerized tomography)
### Extended Anamnesis Checklist (Questionnaire 15 pages)

<table>
<thead>
<tr>
<th>A</th>
<th>General symptoms</th>
<th>Visit</th>
<th>Since when</th>
<th>Days</th>
<th>Intensity</th>
<th>Allergy</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Abnormal fatigue, chronic exhaustion, permanent tiredness</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>02</td>
<td>Incompatibility of alcohol, ‘hangover’ which lasts longer than normal</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>03</td>
<td>General weakness, low condition, physical and mental tiredness</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>State of health is improving or degrading with movement</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>State of health changes within short periods</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
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</tr>
<tr>
<td>06</td>
<td>Fever, feeling of fever</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>07</td>
<td>Shiver, to be cold</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>08</td>
<td>General aches and pains</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>09</td>
<td>Cold hands and feet although you’re staying in a warm room</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>B</th>
<th>Joints</th>
<th>Visit</th>
<th>Since when</th>
<th>Days</th>
<th>Intensity</th>
<th>Joint</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Elbows</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>Fingers</td>
<td>1</td>
<td>1</td>
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<tr>
<td>03</td>
<td>Foot, ball of the foot, heel</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>04</td>
<td>Wrist, carpus</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>05</td>
<td>Hp</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>06</td>
<td>Jaw</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
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<tr>
<td>07</td>
<td>Knee</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>08</td>
<td>Ankle</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>09</td>
<td>Neck</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
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</tr>
<tr>
<td>10</td>
<td>Shoulder</td>
<td>1</td>
<td>1</td>
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</tbody>
</table>
## Checklist for Co-infections

<table>
<thead>
<tr>
<th>CO</th>
<th>Symptoms please mark</th>
<th>X</th>
<th>Score-Points</th>
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</thead>
<tbody>
<tr>
<td>01</td>
<td>Stomach-ache</td>
<td></td>
<td>Ehrlichia:</td>
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<tr>
<td>02</td>
<td>Anemia</td>
<td></td>
<td>Babesia:</td>
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<tr>
<td>03</td>
<td>Diarrhea</td>
<td></td>
<td>Bartonella:</td>
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<tr>
<td>04</td>
<td>Fever</td>
<td></td>
<td>Rickettsia:</td>
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<tr>
<td>05</td>
<td>Lack of concentration, disturbance of memory, amentia.</td>
<td></td>
<td>Yersinia:</td>
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<tr>
<td>06</td>
<td>Encephalitis (Brain inflammation)</td>
<td></td>
<td>Chlamydia:</td>
</tr>
<tr>
<td>07</td>
<td>Icterus (Jaundice)</td>
<td></td>
<td>Mycoplasmas:</td>
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<tr>
<td>08</td>
<td>Painful joints</td>
<td></td>
<td>Coxsackie virus:</td>
</tr>
<tr>
<td>09</td>
<td>Aches and pains</td>
<td></td>
<td>EBV:</td>
</tr>
<tr>
<td>10</td>
<td>Flu-like symptoms</td>
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<tr>
<td>11</td>
<td>Rush</td>
<td></td>
<td></td>
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<tr>
<td>12</td>
<td>Petechiae, punctate purpuric lesion</td>
<td></td>
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<tr>
<td>13</td>
<td>Heart-trouble</td>
<td></td>
<td></td>
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<tr>
<td>14</td>
<td>Cough</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Headache</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Affected liver-function or liver blood results</td>
<td></td>
<td></td>
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<tr>
<td>17</td>
<td>Pneumonia</td>
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<tr>
<td>18</td>
<td>Swollen or inflamed lymph nodes</td>
<td></td>
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<tr>
<td>19</td>
<td>Tonsillitis. Yellow dinger to the almonds</td>
<td></td>
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<tr>
<td>20</td>
<td>Splenomegaly (Enlargement of the spleen)</td>
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<tr>
<td>21</td>
<td>Fatigue, exhaustion</td>
<td></td>
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<tr>
<td>22</td>
<td>Muscle pain</td>
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<td>23</td>
<td>Shivering</td>
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<td>24</td>
<td>Vision problems, blurry</td>
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<td></td>
</tr>
<tr>
<td>25</td>
<td>Nausea, vomiting</td>
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<td></td>
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<tr>
<td>26</td>
<td>Dark urine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Painful urinating, itching while urinating</td>
<td></td>
<td></td>
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</tbody>
</table>
Risk Assessment Questionnaire for Chronic Inflammations


The following questionnaire focuses on factors that can improve or worsen inflammations. It is an effective self-assessment tool you can use to quickly determine whether or not you are at risk of a chronic inflammation. The good news is that every bad thing is reversible and every good thing is capable of being added to your program.

This test is very easy. Simply write down the numbers that indicate “positive” or “negative” for each item. Then add the positives together. Then add the negatives together. The final score is the sum of positives and negatives, and this total will tell you your personal score.

Positive (Anti-Inflammatory) Daily Dietary and Lifestyle Factors

Award yourself the indicated positive (+) number for each of the following items that are part of your average daily or weekly dietary and lifestyle routine. If the item does not apply to you, leave that particular score blank.

| Fruit Consumption: (5 points for each serving of fresh, frozen, or dried organic fruit you consume each day; 3 points for each serving of unsweetened fruit juice) | .... |
| Vegetable Consumption: (5 points per each serving of raw or steamed vegetables) | .... |
| Daily Vitamin/Mineral/Antioxidant Supplementation: (5 points) | .... |
| Consumption of Oily Fish (e.g., Salmon) or Omega-3 Fish Oil Supplements: (7 points for consumption four or more times/week; 4 points for consumption 1-3 times/week) | .... |
| Organic or Free Range Meat Consumption: (5 points) | .... |
| Regular Use of Olive Oil and/or Other Healthy Oils for Cooking: (5 points) | .... |
| Regular Exercising: (3 points for each 10 minutes of exercise performed per day) | .... |

According to Kenneth B. Singleton, *The Lyme Disease Solution*
Laboratory Testings

Â The following lab tests are necessary for Lyme disease:

- Borrelia IgG and IgM EIA
- Borrelia IgG and IgM Blot
- Lyme Elispot LTT
- Lyme CD 57+ cells
- Borrelia-DNA-PCR
Laboratory Testings

Plus:

⇒ Checking for possible bacterial co-infections

- Ehrlichia
- Bartonella
- Babesia
- Rickettsia
- Chlamydia
- Mycoplasma
- Yersinia
Laboratory Testings

And/Or:

⇒ Checking for possible viral co-infections

- EBV
- CMV
- HSV
- Coxsackie
- Toxoplasma
- Parvo B19
- XMRV
Laboratory Testings

Important:

- Exclusion of rheumatic and/or autoimmune diseases
The following examinations are necessary in terms of traditional diagnostics:

- Electrocardiogram (ECG)
- Ultrasound of abdominal organs
- Physical examination
Holistic Treatment - Traditional

- Antibiotic Treatment
- Change of Diet
- Dietary Supplements / Detox
- Supporting Medication
- Pain Therapy
- Exercise Therapy
- Stress Management
- Mental Coaching & Social Support

- Medical History / Anamnesis
- Diagnostics
- Laboratory Diagnostic
  - Technical & Physical Examinations
Holistic Treatment - Alternative

- Alternative Treatment
  - Change of Diet
  - Dietary Supplements / Detox
  - Supporting Medication
  - Pain Therapy
  - Exercise Therapy
  - Stress Management
  - Mental Coaching & Social Support

- Medical History / Anamnesis
- Diagnostics
- Laboratory Diagnostic
  - Technical, Physical, Alternative Examinations
1. **Antibiotics:**

- To fight *borrelia* bacteria (destruction, prevent further dissemination, etc.) as well as potential co-agents
- Considering the different structures of *borrelia* bacteria (Cyst, Êform, intracellular) and of co-infections for the right selection of antibiotics
- Sufficiently long treatment duration (considering the life cycles of *borrelia* bacteria).
Stage I (acute stage)

Oral therapy (Duration: minimum / taking until disappearance of “bull’s eye rash” respectively of lymphocytic infiltration).
According to guidelines of ILADS 4-6 weeks.

**Doxycyclin** (from 8 age)
(also works against Ehrlichia as Co-infection)

**Cefuroxim** *

**Amoxicillin** * + (Probenicid)

**Clarithromycin** / **Azithromycin***

(* for children under 8 years and for pregnant women)
Stage II (pathogen spreading and acute organ manifestation)
If possible parenteral antibiotic treatment:
e.g. Ceftriaxon, Cefotaxim, Azithromycine 4-6 weeks.

Stage III (chronic organ manifestation)
Very important is the parenteral antibiotic therapy:
Ceftriaxon, Doxycycline, Clarythromycine/Azithromycine) 8-14 weeks +
additional oral treatment with e.g. Clarythromycin, Azithromycine and
Metronidazol.

Treat co-infections before Borrelia bacteria!

Therapy in accordance with the international guidelines of ILADS by
J. Burrascano und the German Borreliosis Society (Deutsche Borreliose
Gesellschaft e.V.)!
Pros of Infusion Therapy

Pros:
- Highest concentration of tissue in antibiotics
- Consequently, higher chances of recovery
- Less stomach strain (e.g. nausea, vomiting and diarrhea)
- Independence from the absorption of the gastrointestinal tract

Cons:
- You need a vein ("Needle phobia")
- Daily time request of approximately one hour
- Local dependency (Doctor’s practice, ambulance)
- Reduction of physiological flora (especially intestines) with a risk of diarrhea
- Higher total costs of therapy
1. **Cefuroxim** 500 mg 1-0-1 for 4 weeks, follow by é

2. **Clarithromycin** 500 mg 1-0-1  
   + **Hydroxychloroquin** 200 mg 1-0-1 for 4-8 weeks, followed by é

3. **Metronidazol** 400 mg 1-0-1 for 2 weeks

Treatment duration: 10 - 14 weeks in total

During 10th week ¿Staging¿considering physical complaints, Borrelia LTT and the CD57+ Cells
Table: Tablets therapy

- **Clarythromycin** 500 mg  
  1 tbl. twice daily
- **Hydroxychloroquin** 200 mg  
  1 tbl. daily
- **Doxycycline** 100 mg  
  2-4 tbl. daily

- For *Try Out* in clinical secured, but laboratory diagnosis questionable Lyme disease at first for 4 weeks
- In cases of fresh Lyme infection (bull’s eye rash)
- In cases of insufficient treatment: follow up treatment according to Burrascano’s scheme.
Pros of tablet therapy

Pros:
- Spatial and temporal independence
- No need for a vein (ã“needle phobiaã"
- Lower total costs of therapy

Cons:
- Lower concentration of tissue
- Consequently, lower chances of recovery
- Dependence from the absorption of the gastrointestinal tract
- Often poor tolerability (e.g. nausea and vomiting)
- Often antibiotic associated diarrhea
We recommend consequently high dosed antibiotics for a minimum of 8 weeks: *Ceftriaxon infusion* (e.g. Ceftriaxon Saar, Cefotrix© or Rocephin©) as „*pulsed treatment*“ (follow by oral antibiotics) .

I. 8 weeks i.v. treatment

At 4 consecutive days per week (e.g. Monday-Thursday or Tuesday-Friday or Friday-Monday).

Short infusion for min. 30 - 60 minutes!!!

At the beginning of therapy
(1st and 2nd day of treatment): 2g Ceftriaxon in 100 ml Common salt solution (NaCl 0,9%)

With good tolerability
(from 3rd day of treatment): 4g Ceftriaxon in 100 ml NaCl 0,9%

*(in body weight ≤50 kg dose reduction on 3 g Ceftriaxon)*
II. Additional treatment: from 2nd week oral antibiotics

Basis: Azithromycine 500 mg 1 tbl. on Mo, We and Fr
Additional: Quensyl (Hydroxychloroquin) 200mg 1 tbl. daily

- If drugs are not tolerated -
Alternative: Minocyclin 100mg 1 tbl. twice daily
Additional: Artemisia annua 200mg 2 capsules twice daily

Laboratory control at BCA:
- Before starting treatment: Borrelia serology (IgM & IgG ELISA and Immunoblot) plus CD3-CD57+ Cells and Borrelia Lymphocyte transformation test (EliSpot), if needed also test for co-infections
- 7th therapy week: CD 57 test, Borrelia Lymphocyte transformation test (EliSpot), test for co-infections if needed.
- 3 month after finishing treatment: Borrelia serology (IgM & IgG ELISA and Immunoblot) plus CD3-CD57+ Cells and Borrelia Lymphocyte transformation test (EliSpot), test for co-infections if needed.
**Augsburg Scheme** for chronic Lyme Disease infections

1.) 1th week Mo – Fr:  
Azithromycine 500 mg* i.v. with 500 ml NaCl 0,9%

2.) from 2nd to 8th week at Mo, We and Fr:  
Azithromycine 500 mg i.v. with 500ml NaCl 0,9%

  additional  
  Quensyl (Hydoxychloroquine) 200 mg 1 tbl. daily
  Doxycycline 200mg 1 tbl. daily

* If no contra-indications (Heart rhythm disturbances, AV block, pregnancy)

**Laboratory control at BCA:**

- Before starting treatment, during 7th therapy week, as well as 3 months after completion of treatment (see the chart above).
1. **Alternative Treatments (naturopathic, homeopathic and traditional Chinese remedies)**

- Elimination of Borrelia (destruction, to prevent further dissemination, etc.) as well as potential co-infections is the role of the body
- Herbal remedies can only help the body in accomplishing this task
- Regulation of the body's immune reaction
- Promotion of damaged tissue repair
The BCA Alternative Treatment Protocol is mainly based on regional and local European herbs.

**Basis for Lyme Disease only:**

Å Teasel Root

Å Liver/Kidney Mixture, alcoholic tincture, containing

- Milk Thistle
- Nettle
- Solidago (Goldenrod)
- Parietaria officinalis (Lichwort)
- Ground-Elder (Aegopodium podagraria)
- Ramsons (Allium ursinum)
- Calendula
- Ononis

Å Cistus

Å Probiotics

Å Alkalizing Capsules maintaining a healthy pH level
Basis for Lyme Disease with Co-infections:

Å Teasel Root & Co - alcoholic tincture containing:

- Teasel Root
- Artemisia annua
- Teucrium scorodonia (Woodland germander)
- Nasturtium (nose-twister)
- Jiaogulan (Gynostemma pentaphyllum)

Å Liver/Kidney Mixture - alcoholic tincture containing:

- Milk Thistle
- Nettle
- Solidago (Goldenrod)
- Parietaria officinalis (Lichwort)
- Ground-Elder (Aegopodium podagraria)
- Ramsons (Allium ursinum)
- Calendula
- Ononis

Å Cistus

Å Probiotics & Alkalizing Capsules (maintaining a healthy ph level)
2. Change of Diet

A diet and lifestyle change is important in case of chronic inflammation and infections.

Treatment Aims:

- Restoration of homeostasis in the body
- Supporting and strengthening the immune system
- Termination of chronic inflammation
- Alleviation and elimination of ailments and symptoms
3. Selected Dietary Supplements during Lyme Therapy

The therapy and immune system can be supported by additionally taking micro-nutrients.

**Important Vitamins / Minerals**

- **Vitamin A** (daily 3-5.000 I.E) + β- Carotin (5-10.000 I.E.)
- **Vitamin B-Complex** (B1 Thiamin, B2 Riboflavin, B3 Niacin, B5 Pantothenic acid, B6 Piridoxin, B9 Folic acid, B12 Methylcobalamin)
- **Vitamin C** (daily 500 – 2000 mg) + possibly Quercitin (Bioflavonoid, daily 500-1500 mg)
- **Vitamin D** (D3 Cholecalciferol 400-5000 I.E.)
- **Magnesium** (daily 400 -1000 mg)
- **Coenzyme Q10** (daily 50-200 mg)
- **Essential fatty acids** (Omega 3 daily 1000-4000 mg, Omega 6)

**Probiotics** (Acidophilus B. / Lactobacillus, Bifidus B., Sacchromyces boulardii)
Dietary Supplements:

Major importance for the healing process:
Chronic Borrelia infections decrease the levels of important vitamins (e.g. B-12, etc.) and minerals in host organisms. Additional dietary supplements are needed during therapy.

Major importance for the intestinal flora:
Chronic infections, such as Lyme, and additional chronic inflammation have a major impact on the intestinal flora and therefore on the immune system. It is important to support and build up strength and immunization in the intestinal flora by taking additional probiotics.
The Columns of Holistic Treatment

Probiotics

- High-quality **probiotics** are very important along with a high-quality multi-vitamin-mineral-CoQ10 supplements and essential fatty acids.
- Probiotics should be taken in high dosage, very high quality and optimal composition, containing: Lactobacillus acidophilus, Bifidobacterium sp and Sacchromyces boulardii.

Effects:

- Balance of normal, beneficial bacteria in the intestinal bowel, often destroyed by antibiotics.
- Prevention of mycoses (e.g. Candida albicans)
- Prevention of antibiotic-associated diarrheas (AAD), particularly Clostridium difficile infections
- Improving the immune function and preventing infections
- Reducing inflammation
- Improving mineral absorption
The Columns of Holistic Treatment

4. Supporting Medication / Detox

The following positive effects can be reached through well-aimed "supporting therapies" (treatment & supplements):

1. Better tolerance and effectiveness of "anti-infectious herbs"
2. Strengthening the immune system (holistic)
3. Pain relief (even for chronic pain)
4. Create "unfavorable environment" for Borrelia reproduction
5. Decreasing cytokine production, which supports inflammations, and balancing TH1 and TH2
6. Treating mood swings
7. Support and improvement of organ functions (incl. liver and kidneys) and detoxification (endotoxins, heavy metals)
8. Improving the body physique
The following treatment options can be used:

Naturopathic Therapies (natural remedies):

- Various plants and herbs used to build-up and stabilize the immune system and block chronic inflammation processes
- Detoxification and support of organ functions
- Dietary consultation within the range of the "milieu therapy" i.e. restoration of homeostasis
- Special salts (e.g. Dr. Schuessler's Nutritional Biochemic System of Medicine)
The Columns of Holistic Treatment

Traditional Chinese Medicine:
- Based on a balance between yin and yang
- Sees disease as a deviation from this balance
- Seeks to restore the balance

TCM diagnosis:
- Inspection
- Auscultation and olfaction
- Inquiring
- Palpation
The Columns of Holistic Treatment

Traditional Chinese Medicine - TCM treatment:

- Dietetics
- Herbology (Chinese herbs / herbal teas)
- Acupuncture
- Chiropractic and massage techniques (tui-na)
- Qigong (meditation and energy work)
The Columns of Holistic Treatment

Homeopathy:

- Nosode therapy
- Definition of constitutional type (based on patient's symptoms and often refined according to a person's constitution)

Prevention of Lyme:
- Homeopathic borrelia nosode  C30
- Ledum C30

Tickbite:
- Ledum (no signs of swollen lymph nodes)
- Mercurius solubilis (Onset of regional lymphnodes)
Homeopathy for Lyme Disease continued...

**Acute Lyme with Erythema migrans (Bull’s eye rash):**
- Apis C 30
- Sulfur
- Sepia
- Sulphur

**Chronic Lyme:**
- Nosode therapy
- Arachnida remedies (Homeopathic Medicine from Spiders)
- Mercuris solubilis
- Auris arsenicosum
5. Pain therapy in Lyme

Pain amongst many others is the most common ailment and symptom of chronic Borrelia infections. An efficient pain therapy of acute and chronic pain demands consistent application of pain relief medication at fixed times and should be part of the holistic approach to therapy.

Common forms of Lyme pain:

**Musculoskeletal pain:**
- Joint pain
- Muscle pain

**Neuropathic pain:**
- Polyneuropathy
- Mono- and Polyneuritis
- Neuralgia
Central pain:
- Meningitis
- Meningoradikuloneuritis

Treatment according to the 3 stages of WHO (World Health Organisation):

**WHO Stage I**
- Non Opioids (e.g. Paracetamol, Ibuprofen, Diclofenac, Metamizol \(\text{-} COX-2\) inhibitors)

**WHO Stage II**
- Weak Opioids (Tramadol, Tilidin-Naloxon, Dihydrocodein ret.) + Non Opioids

**WHO Stage III**
- Strong Opioids (Morphium, Hydromorphon, Fentanyl, Buphrenophine) + Non Opioids
Accompanying medication in pain therapy "Co-Analgetics":

- Antidepressant (Amitriptylin, Doxepin)
- Anticonvulsants (Carbamazepin, Gabapentin, Pregabalin)
- Sedatives (Lorazepam, Midazolam)
- Spasmolytics (Butylscopolamin)
- Antiemetics (Metoclopramid, Haloperidol)

Accompanying therapies in pain therapy:

- Electro therapies:
  - TENS therapy (Transcutaneous Electrical Nerve Stimulation)
  - High-tone therapy (Transcutaneous High Frequency Nerve Stimulation)
  - Magnet therapy
- Acupuncture
- Photon therapy (e.g. Bionic 880)
- Swedish Massage
Herbal Pain Killers

**Naturopathic Remedies:**
- Devil's Claw
- Nettle
- Curcumin
- Bromelain
- White Willow Bark

**Homeopathic Remedies:**
- Arnica
- Traumeel (homeopathic complex remedy)
The Columns of Holistic Treatment

6. Physiotherapy

- Physiotherapy (Brügger, Bobath, Cranio Sacral, KGG)
- Classical massages, connective tissue massage
- Manual lymph drainage
- Thermo therapy (incl. Infrared therapy)

Exercise Therapy

- Individual cardiovascular training from the beginning of treatment onwards
- Exercise with ionized oxygen therapy
- At later therapy stages: easy weight training
The Columns of Holistic Treatment

7. Stress Management

- Determination of causes of mental stress
- Identify stress caused by \textit{external environment} (e.g. conflict consultation)
- Modification of mental stress:
  - Progressive Muscle Relaxation according to Jacobsen
  - Autogenic training
  - Qigong / Tai Chi
  - Photon therapy (e.g. Bionic 880)
8. Mental Coaching & Social Support

**Mental Coaching** is a modified form of Psychokinesiology. The aim is to treat and solve problems, which cause conflicts for the patient (e.g. Lyme).

This is usually done by a certified *mental coach* or psycho-therapist.

**Social Support** aims
- to support and help Lyme patients to live with their disease in the private and professional environment, e.g. at home, work, with the family/friends, and in relationships;
- to support them with the recognition of the Lyme disease, i.e. health insurances, pension insurance funds and authorities;
- to help them with expert report, i.e. insurance claims.
Example of an Alternative Holistic Treatment Approach (naturopathy):

<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 a.m.</td>
<td>Welcome and admittance (incl. medical consultation with therapy plan)*</td>
<td>8:00 a.m.</td>
<td>8:00 a.m.</td>
<td>8:00 a.m.</td>
<td>Welcome in the BCA</td>
</tr>
<tr>
<td>9:00</td>
<td>Cardiogram *</td>
<td>8:30</td>
<td>Ultrasound *</td>
<td>8:30 Oxygen therapy</td>
<td>8:30 Oxygen therapy</td>
</tr>
<tr>
<td>10:00</td>
<td>Assessment and findings physiotherapy</td>
<td>9:00</td>
<td>Infusion special vitamin cocktail *</td>
<td>9:00 Oxygen therapy</td>
<td>9:00 Oxygen therapy</td>
</tr>
<tr>
<td>11:00</td>
<td>Introduction to equipment for Photon therapy</td>
<td>11:00</td>
<td>Milieu therapy (basic and healthy nutrition)</td>
<td>10:00 Energy therapy</td>
<td>10:30 Photon therapy</td>
</tr>
<tr>
<td>11:45</td>
<td>Relaxation therapy + doctor's visit *</td>
<td>11:45</td>
<td>Relaxation therapy + doctor's visit *</td>
<td>11:45 Relaxation therapy</td>
<td>11:45 Relaxation therapy</td>
</tr>
<tr>
<td>12:30</td>
<td>Lunch</td>
<td>12:30</td>
<td>Lunch</td>
<td>12:30</td>
<td>Lunch</td>
</tr>
<tr>
<td>2:00 p.m.</td>
<td>Physiotherapy</td>
<td>2:00</td>
<td>Physiotherapy</td>
<td>2:00 Infrared therapy</td>
<td>2:00 Talk therapy II (change of life style)</td>
</tr>
<tr>
<td>3:00</td>
<td>Photon therapy</td>
<td>3:00</td>
<td>Infrared therapy</td>
<td>3:00 Therapy for pain relief</td>
<td>3:00 Therapy for pain relief</td>
</tr>
<tr>
<td>3:30</td>
<td>Talk therapy (Naturopathy + <em>self help</em>)</td>
<td>3:30</td>
<td>Talk therapy (Deepening naturopathy)</td>
<td>3:30</td>
<td></td>
</tr>
<tr>
<td>Daily closing consultation + naturopathy therapy</td>
<td>Daily closing consultation + naturopathy therapy</td>
<td>Daily closing consultation + naturopathy therapy</td>
<td>Daily closing consultation + naturopathy therapy</td>
<td>Daily closing consultation + naturopathy therapy</td>
<td></td>
</tr>
</tbody>
</table>
Conclusion

The goals of a holistic Lyme disease treatment are:

- Eliminating Borrelia bacteria & co-infections
- Minimizing the side effects of treatment
- Build-up and stabilization of the immune system
- Restoration of homeostasis
- Reducing therapy duration
- Optimizing successful treatment to achieve the overall goal: HEALING
Center for tick-borne diseases and co-infections

Short introduction
October 2010
The Borreliose Centrum Augsburg is one of the leading medical institutions in Europe for tick-borne diseases

- Foundation in summer 2006 by Dr. C. Nicolaus (MD, PhD, specialist for Lyme therapy) and Dr. A. Schwarzbach (MD, PhD, specialist for laboratory medicine)
- Unique approach: Diagnostic, specialized laboratory, therapy and rehabilitation in one center (1.400 m²)
- Holistic approach for treatment of chronic of Lyme disease and co-infections
- Intensive treatment and rehabilitation with so called "Compact Lyme Treatment"
- Diagnostic and therapy according to the international guidelines of ILADS (USA) and the recommendations of German Borreliosis Society e.V.

Medical Partnership (5 treating doctors) + B-C-A Borreliose Centrum Augsburg Betriebs GmbH & Co. KG
Structure of the Borreliose Centrum Augsburg

Diagnosis + Therapy

„Medical Partnership“ *
- 5 attending physicians - for all medical services

Accompanying Therapies
incl. Compact Lyme Treatment

specialized Laboratory
for tick-borne diseases and co-infections

Fitness
incl. rehabilitation and nutrition services

Shop
for nutritional & naturopathic products and vital prevention

Dr. med. C. Nicolaus, general practitioner, & Dr. med. A. Schwarzbach, laboratory medicine, medical partnership for tick-borne diseases *

B-C-A Borreliose Centrum Augsburg Betriebs GmbH & Co. KG (www.b-c-a.com)

* Cooperation with and tenant in BCA (www.aerzte-borreliose-augsburg.de)

Shuttle service available to Munich airport
Overview Borreliose Centrum Augsburg
ike in particular (- 1 -)

(1) Experienced team of 5 physicians specialized in Tick-Borne Diseases and Lyme disease in the cooperating medical partnership (therapists and physician for laboratory medicine)
   ▪ substantial anamnesis and physical examination
   ▪ check for other disease patterns and treatment of co-infections,
   ▪ intensive antibiosis and holistic approach to Lyme therapies
   ▪ pain therapy

(2) Special tests for blood analysis to diagnose Lyme disease and other related infections including close cooperation of doctor and laboratory doctor

(3) Wide range of "Accompanying therapies" for higher effectiveness in eliminating Borrelia, a better compatibility of antibiotics and strengthening/re-activating the immune system
(5) Holistic, personalized therapy and rehabilitation approach
   a) The traditional medical treatments completed by complementary medicine: Traditional Chinese medicine (TCM), homoeopathy and naturopathy
   b) Based on the three pillars for the strengthening of the body’s defence forces (immune system):

(6) Sympathetic, understanding physicians and assistants and an positive and comfortable atmosphere (positive energy)

(7) Patients exchange experiences (worldwide)

(8) Competent telephone information, providing information material and the collaboration with other doctors (tick-borne laboratory services and therapy plans)
Sessions of Borreliose Centrum Augsburg (BCA)
Sessions of Borreliose Centrum Augsburg (BCA)
for your attention!

Carsten Nicolaus, MD, PhD

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