Morgellons Disease (MD): Diagnositc and Testing, Conventional and Alternative / Integrative Treatment Approaches in the BCA-clinic Augsburg / Germany

Annual Medical / European Scientific Conference on Morgellons Disease Augsburg, 20.10.2018

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Disclosure Statement

Dr. Carsten Nicolaus, MD PhD
Founder and Medical Director
BCA-clinic Augsburg / Germany

I, Dr. Carsten Nicolaus, have completed commercial bias disclosure forms and do not have any conflicts of interest.
BCA-clinic overview

- Founded in 2006
- 44 Employees (5 physicians)
- Over 26,000 patients over the past 11 years
- Since 2007 treatment of MD patients
Overview of Presentation

- 1. Diagnostic and testing of MD
- 2. MD Symptoms
- 3. Treatment strategies:
  - a. Conventional treatment of MD
  - b. Alternative / Integrative treatment of MD
Diagnostic is based on:

1. Medical history (anamnesis) of the patient, including special anamnesis types
2. Inspection and physical examination
3. Dermatoscope inspection (50-60 x magnification to make possible filaments visible)
4. Diagnostic Tests => Laboratory testings
5. Before starting treatment:
   => additional technical examinations, always ECG, abdominal and abdominal ultrasound.
   => if needed MRI Scan, SPECTScan (single photon emission computerized tomography)
# Extended Anamnesis Checklist (Questionnaire 15 pages)

## General symptoms

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

## Joints

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<thead>
<tr>
<th>B</th>
<th>Visit</th>
<th>Since when</th>
<th>30 days staying</th>
<th>Frequency</th>
<th>Swell</th>
<th>Pain</th>
<th>Redness</th>
<th>Heat</th>
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<td>01 Elbows</td>
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<td>02 Fingers</td>
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<td>03 Foot, ball of the foot, heel</td>
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<td>04 Wrist, carpus</td>
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<td>05 Hip</td>
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<td>06 Jaw</td>
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<td>08 Ankle</td>
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<td>09 Neck</td>
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<td>10 Shoulder</td>
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## Multi Infectious Diseases Prediction Tool

<table>
<thead>
<tr>
<th>CO</th>
<th>Symptoms please mark</th>
<th>X</th>
<th>Score-Points</th>
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<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>Diarrhoea</td>
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<td>Bartonella:</td>
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<td>04</td>
<td>Fever</td>
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<td>Rickettsia:</td>
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<tr>
<td>05</td>
<td>Lack of concentration, disturbance of memory, amentia</td>
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<td>Yersinia:</td>
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<tr>
<td>06</td>
<td>Encephalitis (Brain inflammation)</td>
<td></td>
<td>Chlamydia:</td>
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<tr>
<td>07</td>
<td>Icterus (Jaundice)</td>
<td></td>
<td>Mycoplasmas:</td>
</tr>
<tr>
<td>08</td>
<td>Painful joints</td>
<td></td>
<td>Coxsackie Virus:</td>
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<tr>
<td>09</td>
<td>Aches and pains</td>
<td></td>
<td>EBV:</td>
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<tr>
<td>10</td>
<td>Flu-like symptoms</td>
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<tr>
<td>11</td>
<td>Rush</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>
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<tr>
<td>14</td>
<td>Cough</td>
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<tr>
<td>15</td>
<td>Headache</td>
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<td>16</td>
<td>Affected liver-function or liver blood results</td>
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<td>17</td>
<td>Pneumonia</td>
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<td>18</td>
<td>Swollen or inflamed lymph nodes</td>
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<tr>
<td>19</td>
<td>Tonsillitis, Yellow dinger to the almonds</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>
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<tr>
<td>22</td>
<td>Muscle pain</td>
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<tr>
<td>23</td>
<td>Shivering</td>
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<tr>
<td>24</td>
<td>Vision problems, blurry</td>
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<tr>
<td>25</td>
<td>Nausea, vomiting</td>
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<td>26</td>
<td>Dark urine</td>
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<td>27</td>
<td>Painful urinating, itching while urinating</td>
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Risk Assessment Questionnaire for Chronic Inflammation

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)
  - 

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BCA CLINIC

[Logo]
Diagnostics/ Laboratory Testings

• The following bacterial infectious diseases have been mostly found in patients diagnosed with MD:

• Borrelia burgdorferi and other closely related Borrelia species (e.g. B.afzelii, B. garinii, etc)
• Bartonella
• Clamydia pneumoniae
• Other so called co-infections
Diagnostics/Laboratory Testings

The following lab tests are available for Borrelia infections:
from blood or tissue:
  - Borrelia IgG and IgM EIA
  - Borrelia IgG and IgM Blot
  - Elispot /Lymespot Borrelia
  - CD 57+ NKcells Test
  - C6 peptide ELISA

Direct detection:
  - Borrelia-DNA-PCR
  - Borrelia culturing

„Two Tier Testing“
Diagnostics/Laboratory Testings

Plus:
⇒ Checking for possible bacterial co-infections

- Ehrlichia
- Bartonella
- Rickettsia
- Chlamydia
- Mycoplasma
- Yersinia
Diagnostics/Laboratory Testings

Plus:
⇒ Checking for parasites:

- Babesiosis
- other Piroplasma Infections

Checking for worm disease:
Helminths (tapeworms, roundworms)
e.g. *Toxocara canis* (dog tapworm) or *Ascaris suum* (roundworm of pigs)
but only the larvae*.

* Regarding Prof. Dr. Herbert Auer, Department of Parasitology, University of Vienna / Austria
Diagnostics/Laboratory Testings

And/Or:

⇒ Checking for possible viral co-infections

- EBV
- CMV
- HSV
- Coxsackie
- Toxoplasma
- Parvo B19
Diagnostics/Laboratory Testings

Plus:
⇒ Checking for Differential Diagnosis

- Rheumatic Diseases (RF, Anti-CCP)
- Autoimmune Diseases (ANA, ENA, p-ANCA, c-ANCA)
- Inflammation (IL-1, IL-6, TNF-α, Interferon gamma)
- Toxicity (Multiple Chemical Sensitivity, Heavy Metals, Environmental Illness, Mold)
- Endocrine dysfunktions (Thyroid, Pituitary, Adrenals, Sex Hormones, Vit D)
Morgellons Disease: Symptoms

- **Acute Stage/ Onset:**
  - MD patients often have spontaneously-appearing, slowly-healing skin ulcers and may have itching, crawling or stinging sensations in their skin.
  - Presentation of microscopic filaments or fibers in the skin lesions or under the skin. Fibers or filaments could be multicolored.

- **Chronic Stage:**
  - Patients could present constitutional, musculoskeletal and neurocognitive symptoms similar to Lyme Disease and other co-infections.
  - Severe tiredness and Fatigue
  - Poor sleep
  - Cognitive decline (brain fog)
  - Behavioral and other mental disorders, especially depressive episodes and increased suicidal tendencies, but not in the sense of delusion sticking parasitosis
### Unspecific General Symptoms

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>significant loss of energy (work/house work/sports)</td>
<td>&gt; 90%</td>
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<tr>
<td>exhaustion</td>
<td>&gt; 90%</td>
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<tr>
<td>fatigue</td>
<td>&gt; 90%</td>
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<tr>
<td>flu-like infection with fever: In the early stages this means that Borrelia are present in the blood (20%)</td>
<td>≈ 20%</td>
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<tr>
<td>neck pain</td>
<td>78%</td>
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<tr>
<td>shoulder pain</td>
<td>76%</td>
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<tr>
<td>temporary headache / dizziness</td>
<td>76%</td>
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<tr>
<td>changing/“moving” joint pain</td>
<td>68%</td>
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<tr>
<td>changing/“moving” muscle pain / “rheumatism”, overall weakness</td>
<td>62%</td>
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</table>
# Unspecific General Symptoms

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>bad temper / mental instability / depression</td>
<td>62%</td>
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<tr>
<td>back pain, often sciatic pain</td>
<td>58%</td>
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<tr>
<td>problems sleeping “through” the night with night sweating / urge to urinate between 2 a.m. and 4 a.m.</td>
<td>47%</td>
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<tr>
<td>sore throat / prone to infections / herpes-EBV-infections</td>
<td>39%</td>
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<td>burning eyes / watering eyes / blurred vision</td>
<td>28%</td>
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<tr>
<td>dysuria, irritated bladder / urge to urinate</td>
<td>19%</td>
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<tr>
<td>coughing</td>
<td>5%</td>
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<tr>
<td>chest pain / heart palpitations / heart rhythm dysfunction</td>
<td>4%</td>
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<tr>
<td>ear pain / tinnitus</td>
<td>4%</td>
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<tr>
<td>diarrhoea</td>
<td>2%</td>
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</tbody>
</table>
Some MD patients could remember an Erythema migrans
Or Cutaneous Lymphoid Hyperplasia (Borrelial Lymphocytoma)
Or present
Acrodermatitis chronica athrophicans (ACA)
8 Pillars of Integrative MD Treatment
- Conventional

Recovery / Therapy Success

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

Anamnesis / Medical History
Diagnostics
Laboratory Diagnostics
Technical & Physical Examinations
8 Pillars of integrative MD Treatment

- **Anti-microbial Treatment:**
  - Antibiotics
  - Antiparasitics / Anthelmintics
  - Antivirals
  - Antifungals
Designing Combination Treatment / Treatment for Borrelia and co-infections

<table>
<thead>
<tr>
<th>Cell Wall</th>
<th>„Roundbodies“ former Cystic Forms</th>
<th>Intracellular</th>
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<tbody>
<tr>
<td>Betalactams:</td>
<td>Artemisin</td>
<td>Macrolides:</td>
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<tr>
<td>Amoxicillin</td>
<td>Hydroxychloroquin</td>
<td>Azithromycin</td>
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<tr>
<td>Penicillin G benzathine</td>
<td>Atovaquon</td>
<td>Clarithromycin</td>
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<td>Cephalosporins:</td>
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<td>Clindamycin</td>
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<td>Ceftriaxon i.v.</td>
<td>Metronidazole</td>
<td>Quinolones:</td>
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<td>Cefotaxim i.v.</td>
<td>Tinidazole</td>
<td>Ciprofloxacin</td>
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<tr>
<td>Cefuroxim</td>
<td></td>
<td>Levofloxacin</td>
</tr>
<tr>
<td>Cefdinir</td>
<td></td>
<td>Moxifloxacin</td>
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<tr>
<td>Cefpodoxime</td>
<td></td>
<td>Rifampicin</td>
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<tr>
<td></td>
<td></td>
<td>Tetracyclines:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Doxycycline</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minocycline</td>
</tr>
</tbody>
</table>
Co-Infections transmitted by ticks or other biting insects (tick or mosquito borne infections):

- Ehrlichia / Anaplasma infections
- Rickettsial infections
- Bartonella
- Babesia
- Tularemia (Francisella tularensis)
- Vector-Borne Viral Infections (TBE, Omsk Hemorrhagic Fever, Congo-Crimean Hemorrhagic Fever (CCHF))
Co-Infections transmitted by air, ingestion (unsterilized milk or meal), sexual contact, transplacental and others

These co-infections are mostly based on a weak immune system suppressed by CLD:

- *Chlamydia pneumoniae* and *trachomatis*
- *Mykoplasm pneumoniae* and *fermentans*
- *Yersinia*
- *Brucellosis*
- *Q fever* (*Coxiella burnetii*) Feces of Dermacentor ticks
- Virus infections: *EBV*, *Cytomegalie*, *HHV-6*, *Coxsackie*, etc.
Chlamydia pneumoniae infection

- **Bacteria:** Chlamydophila pneumoniae (gram-negative, intracellular)
- **Vector/Transmission:** airborne infection, human to human, ticks or reactivated in Lyme disease
- **Symptoms:** slight throat pain, hoarseness, sinusitis, atypical pneumonia, meningoencephalitis, bronchiolitis obliterans, myocarditis, Guillain-Barre-Syndrom;
- **after infection (4-6 weeks):** arthritis, tendovaginitis
- **Comorbidity:** e.g. Morbus Alzheimer, Multiple Sclerosis, Depressions, Fibromyalgia, Chronic Fatigue Syndrome (CFS), heart attacks, apoplectic stroke, arteriosclerosis, Autism, Parkinsonism, Rheumatoid Arthritis
- **Risk factors:** immune suppression (children/elder people)
Chlamydia pneumoniae: Laboratory tests

- **Chlamydia pneumoniae Elispot or Lymespot revised™:** based on T-cellular activity (Interferon gamma).

- **ELISA / IFT:** Antibodies for Chlamydia pneumoniae (IgA, IgM and IgG): indirect detection (half-life time of local-standing IgA-antibodies: 2 weeks)

- **PCR:**
  Chlamydia pneumoniae in blood/sputum/pharyngeal secretion: direct detection

- **Treatment:**
  - Macrolids (Azithromycin, Clarithromycin, etc.)
  - Doxycyclin
  - Chinolones (Levofloxacin, etc.)
Bartonella

• **Bacteria:**
  Gram-negativ, intracellular parasite. 8 Bartonella species or subspecies are known to infect humans: B. henselae (Cat scratch disease), B. quintana (Trench fever, bacillary angiomatosis), B. bacilliformis (Carrion’s disease/Oroya fever).

• **Vector:**
  Cats, ticks, fleas, sand flies and mosquitoes

• **Symptoms:** Symptoms disproportionately affect the following areas:
  - Central nervous system
  - Peripheral nervous system
  - Gastrointestinal
  - Eyes
  - Skin
Bartonella: Symptoms

Peripheral Neuropathies:

- Shooting, sharp, burning pains
- Electric sensations
- Paresthesias
- Creepy-crawly sensations
- Sore soles, especially in the AM
- Palsies, weakness
Bartonella: Symptoms

Dermatological:

- Red papular eruptions
- Red streaks like stretch marks that do not follow skin planes
- Spider veins
- Skin mottling, livido reticularis
- Erythema nodosum, subcutaneous nodules
- Bacillary angiomatosis
- Rarely, can find Bartonella organisms in rash biopsies
Bartonella: Treatment

- **Most effective: Floroquinolones**
  - Levofloxacin > Cipro
  - Efficacy decreased if co-administered with macrolides
  - Pretreat with magnesium to protect tendons

- **Combinations**
  - Azithromycin, Doxycyclin and Rifampicin
  - Clarithromycin, Doxycyclin and Rifampicin
  - Clarithromycin and Rifampicin
  - Doxycycline and Rifampin
  - Metronidazole and Rifampin
  - SMZ/TMP and Macrolide

- **Hydroxychloroquine or Artemisia added to above regimens**
MD: anti-microbial treatment

- **Antibiotics:**
  - Different combinations based on confirmed or suspected bacterial infections

- **Antifungals**
  - Amphotericin
  - Itroconazole
  - Fluconazole
  - Ketoconazole

- **Anthelmintics / Antiparasitics**
  - Ivermectin
  - Mebendazole
  - Albendazole
8 Pillars of Holistic MD Treatment - Alternative

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

Anamnese / Medical History

Diagnostics

Laboratory Diagnostics
Technical, Physical & Alternative Examinations
The 8 Pillars of Holistic MD Treatment

1. **Herbal Anti-Microbial Remedies**

- Herbal anti-microbials could eliminate Borrelia spirochets (destruction, to prevent further dissemination, etc.) and potential co-infections
- Herbal remedies support the body in accomplishing this task
- Regulation of the body's immune reaction
- Promotion of damaged tissue repair
Integrative/Alternative Protocols

Many different herbal protocols are available:

- USA:
  - Buhner Protocol
  - Beyoncéed Balance Formulas Susan McCamish
  - Cowden Protocol
  - Byron White Formulas
  - Zhang Protocol

- Europe:
  - „Lyme plus Protocol“ (Austria)
  - „M1-M7“ Protocols (Dr. Carsten Nicolaus)
# Lyme plus Protocol

Dosage recommendations for naturopathic therapy of Lyme disease and co-infections (incl. Bartonella and Babesia)

<table>
<thead>
<tr>
<th>Name of patient</th>
<th>Date</th>
</tr>
</thead>
</table>

## Principal Therapy

<table>
<thead>
<tr>
<th>Effect</th>
<th>Product</th>
<th>Dosage</th>
<th>Intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Therapy</td>
<td>Supplement with 300 mg artemisia and 100 mg monacalin</td>
<td>2 x 1 cps</td>
<td>after the meal</td>
</tr>
<tr>
<td></td>
<td>Supplement with 120 mg polyicosanol, 100 mg andrographis paniculata, 100 mg artemisia</td>
<td>2 x 2 cps</td>
<td>after the meal</td>
</tr>
<tr>
<td>Detoxification</td>
<td>Supplement with 150 mg chlorophyll, 50 mg selen, 50 mg biotin, 50 mg cranberry, arbutose, sage, wild garlic, dandelion</td>
<td>2 x 2 cps</td>
<td>after the meal</td>
</tr>
</tbody>
</table>

## Accompanying Therapy

<table>
<thead>
<tr>
<th>Pro-Immune</th>
<th>Product</th>
<th>Dosage</th>
<th>Intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probiotics</td>
<td>Supplement with probiotics</td>
<td>1 x 1 cps</td>
<td>with the breakfast or lunch</td>
</tr>
<tr>
<td>Multivitamin</td>
<td>1 x 1 cps</td>
<td>with the breakfast</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Anti-Inflammation</th>
<th>Product</th>
<th>Dosage</th>
<th>Intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omega-3 fatty acids</td>
<td>3 x 1 cps</td>
<td>before bedtime with plenty of water</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Anti-Fatigue</th>
<th>Product</th>
<th>Dosage</th>
<th>Intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplement with at least 1 mg NAC and 25 mg L-carnitine, 1 mg coenzyme Q10</td>
<td>2 x 2 cps</td>
<td>morning and noon with the meal</td>
<td></td>
</tr>
<tr>
<td>Supplement with 100 mg Q10 and 200 mg inositol</td>
<td>2 x 1 cps</td>
<td>before bedtime with plenty of water</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Healthy Acid-Balance</th>
<th>Product</th>
<th>Dosage</th>
<th>Intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkalizing supplement (3.5 ml) 1 x 3 times</td>
<td>4 x 1 cps</td>
<td>before bedtime with plenty of water</td>
<td></td>
</tr>
</tbody>
</table>

Intake duration is ca. 6-12 months, depending on the disease pattern. Please attend for follow-up reassessment in the BCA after consultation with your attending physician. (The naturopathic therapy should not be interrupted without consulting your physician first.)

Daily amount per day (50 mg/kg body weight, considering cardiovascular diseases):
- 1 liter of distilled water, preferably still spring water.
- 3 liters of alkaline water, preferably still spring water.

We ask for a ELISPOT and CD47 Test in the beginning of the 1. and 2. therapy week, as well as co-infections in our laboratory. The results of these tests and the symptoms development determine the therapy duration, which will be discussed with the patient during an appointment at the private practice Dr. Nickel in the BCA-clinic Augsburg in the 1. and 2. therapy week. Please arrange an appointment.
Lyme plus Core Protocol

Anti-microbial Treatment:

- *Polyporus umbellatus*
- *Andrographis paniculata*
- *Artemisia annua*
- *Red Grape Seed (OPC)*
- *Grapefruit seed*
- *Garlic*
Lyme plus Core Protocol

Anti-microbial and anti-parasitic Treatment:

- Artemisia annua
- Monolaurin
- Rosmary
- Black Pepper
Lyme plus Core Protocol

Detoxification

- Chlorella pyrenoidosa
- Nettle
- Bilberry
- Cranberry
- Ligonberry

- Artichoke
- Sage
- Bear’s Garlic
- Turmeric (Curcuma)
Lyme plus Protocol

Anti-microbial and anti-parasitic Treatment:

• Artemisia annua
• Allicin / Garlic
• Black walnut
• Thyme
• Ginger
• Gentian
• Marshmallow root
• Milk Thistle
• Ysop
• Fennel
• Clove
• Cayenne Pepper
Lyme plus Protocol

Anti-microbial Bartonella Treatment:

• Gou Teng (Uncaria rynchophylla)
• Lapacho
• Cyst Rose
• Smilax
• Liquorice Root
• Garlic
• Neem
• Grapefruit seed
• Clove
• Beard Lichen
Lyme plus Protocol

- Treatment MD skin lesions with a herbal compound:
  - Nigella sativa (black caraway)
  - Gotu Kola (Centella asiatica, Asiatic Pennywort)
  - Vitamin B-5 (Pantothenic Acid)
The M-Protocol – Dr. Carsten Nicolaus –

**Recommended Dosage during Naturopathic Therapy M1 – M6**

<table>
<thead>
<tr>
<th>Name of patient:</th>
<th>Date:</th>
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</table>

<table>
<thead>
<tr>
<th>Naturopathic Remedies</th>
<th>Dosage</th>
<th>Intake Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>„M1“</td>
<td></td>
<td>before meals directly on the tongue</td>
</tr>
<tr>
<td>„M2“</td>
<td></td>
<td>before meals directly on the tongue</td>
</tr>
<tr>
<td>„M3“</td>
<td></td>
<td>before meals directly on the tongue</td>
</tr>
<tr>
<td>„M4“</td>
<td></td>
<td>before meals directly on the tongue</td>
</tr>
<tr>
<td>„M5“</td>
<td></td>
<td>before meals directly on the tongue</td>
</tr>
<tr>
<td>„M6“</td>
<td></td>
<td>before meals directly on the tongue</td>
</tr>
</tbody>
</table>

In herbal medicinal products effects of turbidity might appear. Please shake before use.

Intake duration is ca. 6-12 months, depending on the disease pattern. Please attend for follow-up reassessment in the BCA after consultation with your attending physician. (The naturopathic therapy should not be interrupted without consulting your physician first!)

**Fluid amount per day (30 mg/kg body weight, considering cardiovascular diseases):**
- Still/non-carbonated water, preferably still spring water:
- Probiotics for ___ weeks.

Please continue the dosage as in the 10th week up to the discussion of the blood results.

We ask for an ELISPOT and CD57 test in the beginning of the 12th/25th therapy week, as well as co-infections in our laboratory. The results of these tests and the symptom development determine the therapy duration, which will be discussed with the patient during an appointment at the BCA-clinic Augsburg in the 14th and 27th therapy week. Please arrange an appointment.
The M-Protocol – Dr. Carsten Nicolaus –

<table>
<thead>
<tr>
<th>Mixture 1:</th>
<th>Mixture 2:</th>
<th>Mixture 3:</th>
<th>Mixture 4:</th>
<th>Mixture 5:</th>
<th>Mixture 6:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tct. Artemisiae annuae hb. 9,5g</td>
<td>Tct. Aegopodii hb. 6,0g</td>
<td>Tct. Gynostemmae pentaphylli hb. 15,8g</td>
<td>Tct. Artemisiae annuae hb. 28,4g</td>
<td>Tct. Myristici sem. 28,4g</td>
<td>extracting agent: ethanol 40% (V/V), drug/extract ratio 1:10</td>
</tr>
<tr>
<td>Tct. Dipsaci silvestri rad. 9,5g</td>
<td>Tct. Allii ursini hb. 6,0g</td>
<td>Tct. Salviae officinalis fol. 15,8g</td>
<td>Tct. Dipsaci silvestri rad. 28,4g</td>
<td>extracting agent: ethanol 40% (V/V), drug/extract ratio 1:10</td>
<td></td>
</tr>
<tr>
<td>Tct. Gynostemmae pentaphylli hb. 9,5g</td>
<td>Tct. Calenduleae flor. 6,0g</td>
<td>Tct. Tropaeoli maj. hb. 15,8g</td>
<td>extracting agent: ethanol 40% (V/V), drug/extract ratio 1:10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tct. Salviae officinalis fol. 9,5g</td>
<td>Tct. Cardui mariae fruct. 6,0g</td>
<td>extracting agent: ethanol 40% (V/V), drug/extract ratio 1:10</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Tct. Tropaeoli maj. hb. 9,5g</td>
<td>Tct. Ononis rad. 6,0g</td>
<td>extracting agent: ethanol 40% (V/V), drug/extract ratio 1:10</td>
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<td></td>
</tr>
<tr>
<td>extracting agent: ethanol 40% (V/V), drug/extract ratio 1:10</td>
<td>Tct. Parietariae officinalis hb. 6,0g</td>
<td>extracting agent: ethanol 40% (V/V), drug/extract ratio 1:10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>extracting agent: ethanol 40% (V/V), drug/extract ratio 1:10</td>
<td>Tct. Solidaginis virgaureae hb. 6,0g</td>
<td>extracting agent: ethanol 40% (V/V), drug/extract ratio 1:10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tct. Urticae hb. 6,0g</td>
<td></td>
<td>extracting agent: ethanol 40% (V/V), drug/extract ratio 1:10</td>
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</tbody>
</table>
Other herbal extracts for:

- Additional symptoms & ailments
- Systemic and topical treatment MD skin lesions
- Organ dysfunctions
- Flushing out of heavy metals (Detoxification)
The 8 Pillars of Holistic MD Treatment

2. **Change of Diet**

A diet and “lifestyle“ change is also 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 MD Therapy

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

Important Vitamins / Minerals:

- Vitamin A (3-5.000 I.E daily) + ß- 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 (500 – 2000 mg daily) + possibly Quercitin (Bioflavonoid, 500-1500 mg daily)
- Vitamin D (D3 Cholecalciferol 400-5000 I.E.)
- Magnesium (400 -1000 mg daily)
- Coenzyme Q10 (100-400 mg daily)
- Zinc (50 mg daily)
- Selenium (100-300 mg daily)
The 8 Pillars of Holistic MD Treatment

**Other Dietary Supplements** (depending on treatment and symptoms)

- Eleutherococcus sentinosus (Siberian Ginseng)
- Quercitin
- Curcumin
- Essential Fatty Acids (Omega 3, 100 – 4000 mg and Omega)
- Alpha Lipoic Acid (600mg)
- Resveratrol (20 – 40 mg)
- Gluthatione
- Alkalizing Supplements
- Gingko biloba (120 – 240 mg)
- SAMe (S-Adenosyl-Methionin, 200 – 400 mg)
- 5 HTP (100- 200 mg)
- Tryptophan (500- 1000 mg)
- **Probiotics** (Acidophilus B. / Lactobacillus, Bifidus B., Sacchromyces boulardii)
The 8 Pillars of Holistic MD Treatment

4. Supporting Medication / Detox

The following positive effects can be reached through “supporting therapies“ (treatment & supplements):

- Better tolerance and effectiveness of “anti-infectious herbs“
- Immun support
- Pain relief (even for chronic pain)
- Create “unfavorable environment“ for Borrelia bacteria and other pathogens
- Decreasing cytokine production, which supports inflammation, and balancing TH1 and TH2
- Treating mood swings
- Support and improvement of organ functions (including liver and kidneys) and detoxification (endotoxins, heavy metals)
- Improving the body physique
Pain amongst many others is the most common ailment and symptom of MD. An efficient pain management of acute and chronic pain demands consistent application of pain relief medication at fixed times and should be part of any holistic approach.

Common forms of ‘MD-Pain’:

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

**Neuropathic pain:**
- Poly-neuropathy
- Neuralgia
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
The 8 Pillars of Holistic MD Treatment

Herbal Pain Killers

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

Homeopathic Remedies:
- Arnica
- Homeopathic complex remedies (e.g. Traumeel, etc)
The 8 Pillars of Holistic MD Treatment

- **6. Physiotherapy**

  - Physiotherapy, is a physical medicine and rehabilitation specialty that, by using mechanical force and movements, remediates impairments and promotes mobility, function, and quality of life through examination, diagnosis, prognosis, and physical intervention.

  - **Manual therapy**
  - **Classical massages**, connective tissue massage
  - **Manual lymph drainage**
  - **Thermo therapy** (Heat, cold incl. Infrared therapy)

- **Exercise Therapy**

  - Individual cardiovascular training from the beginning of treatment onwards
  - Specific exercises
  - **Exercise with ionized oxygen therapy**
  - At later therapy stages: easy weight training
The 8 Pillars of Holistic MD Treatment

- **7. Stress Management**
  - Determination of causes of mental stress
  - Identify stress caused by “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)
The 8 Pillars of Holistic MD Treatment

8. Social Support

Social Support aims

- to support and help MD patients to live with their disease in the private and professional environment, e.g. at home, work, with family/friends, and in relationships;
- to support them with the recognition of their disease, i.e. health insurances, pension insurance funds and authorities;
- to help them with expert report, i.e. insurance claims.
The Roof of a Holistic Treatment Approach

Conclusion

The Goals of Holistic MD Treatment:

• Eliminating Borrelia and other TBD bacterias, parasites and viruses
• Anti-inflammatory support
• Immun support, build-up and stabilization of the immune system
• Minimizing the side effects of treatment
• Restoration of homeostasis
• Reducing therapy duration
• Optimizing successful treatment to achieve the overall goal:

⇒ COMPLETE RECOVERY
Conclusions

• Naturopathic treatment protocols are a good alternatives in treating Morgellons Disease (MD), particularly if a conventional antibiotic treatment cannot be prescribed due to various reasons.

• The length of treatment is in mostly 2-3 times longer.

• The treatment is usually best tolerated by patients and has no or very few side effects.

• A naturopathic treatment over 12 – 18 months has shown almost similar results compared to a 6 months antibiotic treatment in our clinic.
References

Thank you for your attention!

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