Integrative Practitioner Forum

The Integrative Practitioner Forum provides an ongoing structure for local health care providers, faculty and students to learn from and network with each other. For practitioners, it is an opportunity to ask the questions that need to be asked, present their findings regarding integrative health practices, and share their successes and challenges in addressing the needs of patients.

Not all the views presented during a practitioner forum represent the views of the Medical Center, the College of Nursing and Health Sciences or the Larner College of Medicine at the University of Vermont. Our hope is that these talks facilitate discussions of complex issues that affect patients in our community. We encourage you to listen to the video presentations to obtain a full understanding of the speakers’ content and recognize there are different approaches to addressing these issues. We invite dialogue around evidence-informed and evidence-based health care practices.
Tick Borne Illness: what you need to know

*Bridging the information gap: Prevention, Diagnosis and Treatment*

Ronald Stram MD Founder and Medical Director
Introduction
How We Get There:
SUPPORTING YOURSELF
PATIENT STORIES
SYMPTOMS AND TREATMENT
RESILIENCE – Your Means of Support

Lifestyle
- Food
- Movement
- Vegan/Vegetarianism
- Paleo

Spirit
- Friendship
- Love
- Family/Heritage
- Prayer
- Religion
- Volunteerism

Resilience

Micropathology
- Microbiology

TREATMENT

Biological Terrain
PATIENT STORIES

9 Year Old Boy
From Buffalo, New York

Loved to play football, soccer, all sports

- At 7 years old, he developed severe joint pain
- Saw several rheumatologists, took multiple drugs
- Finally tested for Lyme Disease after 1 year
- POSTITIVE 10 out of 10 bands

Began proper treatment – 75% improved
35 Year Old Female
From New Zealand

Middle school teacher – unable to remember lesson plans, could not work
Musculoskeletal joint pain
Headache, Memory loss
Abdominal pain, Chest pain

Began proper treatment – 95% better


**LYME – The Big Picture**

**Symptoms:**
- **Tier 1**: Flu like symptoms, migratory joint pain
- **Tier 2**: Fatigue, Cognitive dysfunction, memory loss
- **Tier 3**: Neurological symptoms, POTS

**Physical Exam:**
- Unexplained tachycardia
- Low or mildly high temperature 36 - 37.5°C
- Musculoskeletal joint pain, tenderness
- Occipital tenderness
- Abdominal tenderness

**Common Lab Results:**
- Possible low WBC
- Otherwise typically normal labs

**Labs to Order:**
- CBC/CMP, G6PD, C4A, Homocysteine (then MTHFR if abnormal), Vit D, B12, B6, Armin Labs/Igenex, EBV, TSH, Iron

**Imaging to Order:**
- CT with and without contrast
- MRI w/ and w/out contrast

**Patient enters practice with symptoms**

**TX ROUND 1:**
- Minocycline/Doxy
- Plaquenil/Flagyl
- + or – Amoxicillin/Azithromycin
- Gut protocol and supplements

**DURATION**: 3 months (up to 2 abx combos)

**TX ROUND 2**: “Restorative Phase”
- Off all abx for 2-4 weeks
- IV Myers – nutritional vitamin tx
- Glutathione push/NAC
- CS Therapy/Acupuncture
- Naturopath Appointment

**DURATION**: 1 month

**TX ROUND 3**: “Herbal Phase”
- Continue oral abx at a tapered down dosing for 2 months (if necessary)
- Overlap last round of abx with herbal regimen
- Taper off abx while on herbal regimen
- Ensure you continue lifestyle changes (diet, etc)
- TCM Consultation

**DURATION**: 6 months

**TX ROUND 4**: “IV THERAPY”
- Rocephin 2g 4-5x per wk
- 1. Includes oral antibiotics/
- 2. Supplements
- 4. Persister drugs

**DURATION**: 2 months

**Supplements:**
- Gut Protocol
- Antimicrobial herbs
  - Cats Claw/Samento
  - Japanese Knotweed
  - Andrographis
  - Artemisia
  - Grapefruit seed extract
  - Banderol

**Treatment Plan:**
Patient will always be on the gut protocol
1. CS therapy 1x/week
2. Acupuncture 1x/week
3. Nutrition Appointment (Plant Based Paleo, Gluten Free, Anti Inflammatory)
4. Antibiotics according to chart

**IF TREATMENT FAILS:**
Co-infection testing
Differential diagnosis

**Supplements:**
- Gut Protocol
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  - Cats Claw/Samento
  - Japanese Knotweed
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**IF TREATMENT FAILS:**
Co-infection testing
Differential diagnosis
# The Symptoms of Lyme in Tiers

<table>
<thead>
<tr>
<th>Tier 1</th>
<th>Tier 2</th>
<th>Tier 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SYMPTOMS</strong></td>
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<td><strong>SYMPTOMS</strong></td>
</tr>
<tr>
<td>• Flu Like Symptoms</td>
<td>• Fatigue</td>
<td>• Neurological symptoms</td>
</tr>
<tr>
<td>• Migratory joint pain</td>
<td>• Cognitive dysfunction</td>
<td>• POTS</td>
</tr>
<tr>
<td>• Headache</td>
<td>• Memory Loss</td>
<td><strong>Appear in the more severe cases of Lyme disease, typically after infected more than 6 months/years without treatment</strong></td>
</tr>
</tbody>
</table>

**Typically appear within 1-2 weeks of infection, or cyclically throughout infection**

**Appear after 3 months of infection**
### VARIATION:

**Multi-systemic symptoms**

<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>SYMPTOMS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HEAD</strong></td>
<td>Headaches, Headache, Headache, Pain, Pain, Nausea, Dizziness, Insomnia, Total for section 0</td>
</tr>
<tr>
<td><strong>EYES</strong></td>
<td>Watery or itchy eyes, Swollen, reddened or sticky eyes, Bags or dark circles under eyes, Blurred or tunnel vision (does not include near or far-sightedness), Total for section 0</td>
</tr>
<tr>
<td><strong>EARS</strong></td>
<td>Itchy ears, Ear infections, Ringing in ears, popping ears, hearing loss, Total for section 0</td>
</tr>
<tr>
<td><strong>NOSE</strong></td>
<td>Stuffy nose, Sinus problems, Hay fever, Sneezing attacks, Excessive mucus formation, Total for section 0</td>
</tr>
<tr>
<td><strong>MOUTH/THROAT</strong></td>
<td>Chronic coughing, Gauging, frequent need to clear throat, Sore throat, hoarseness, loss of voice, Swollen or discolored tongue, gums, lips, Canker sores, Total for section 0</td>
</tr>
<tr>
<td><strong>SKIN</strong></td>
<td>Acne, Hives, rash, dry skin, Hair loss, Flushing, Excessive sweating, Total for section 0</td>
</tr>
<tr>
<td><strong>HEART</strong></td>
<td>Irregular or skipped heartbeat, Rapid or pounding heartbeat, Chest pain, Total for section 0</td>
</tr>
<tr>
<td><strong>LUNGS</strong></td>
<td>Chest congestion, Asthma, bronchitis, Shortness of breath, Difficulty breathing, Total for section 0</td>
</tr>
<tr>
<td><strong>DIGESTIVE TRACT</strong></td>
<td>Nausea, vomiting, Diarrhea, Constipation, Bloating, feeling, Bloating, passing gas, Heartburn, reflux, Intestinal/abdominal pain, Total for section 0</td>
</tr>
<tr>
<td><strong>JOINTS/MUSCLES</strong></td>
<td>Pain or aches in joints, Arthritis, Stiffness or limitation of movement, Pain or aches in muscles, Feeling of weakness or tiredness, Total for section 0</td>
</tr>
<tr>
<td><strong>WEIGHT</strong></td>
<td>Binge eating/drinking, Craving certain foods, Excessive weight, Compulsive eating, Water retention, Underweight, Total for section 0</td>
</tr>
<tr>
<td><strong>ENERGY/ACTIVITY</strong></td>
<td>Fatigue, tired, sluggish, Anxiety, lethargy, Hyperactivity, Readiness, Total for section 0</td>
</tr>
<tr>
<td><strong>MIND</strong></td>
<td>Poor memory, Confusion, poor comprehension, Poor concentration, Poor physical coordination, Difficulty in making decisions, Stuttering or stammering, Slurred speech, Learning disabilities, Total for section 0</td>
</tr>
<tr>
<td><strong>EMOTIONS</strong></td>
<td>Mood swings, Anxiety, fear/nervousness, Anger, irritability, Panic attacks, Depression, Total for section 0</td>
</tr>
<tr>
<td><strong>OTHER</strong></td>
<td>Frequent illness, Frequent or urgent urination, Genital itch or discharge, Total for section 0</td>
</tr>
</tbody>
</table>

**GRAND TOTAL** 0
Lyme: What to Look For

Step 1
- **PHYSICAL EXAM**
  - Unexplained tachycardia
  - Low or mildly high temperature (36-37.5°C)
  - Musculoskeletal joint pain
  - Occipital tenderness
  - Abdominal tenderness

Step 2
- **LABS TO ORDER**
  - CBC/CMP, G6PD, Homocysteine (then MTHFR if abnormal), Vit D, B12, B6, MDL, Acutix labs/IGeneX, EBV, TSH, Iron
  - **Common lab results**
    - Possible low WBC, otherwise normal

Step 3
- **IMAGING**
  - CT with and without contrast
  - MRI with and without contrast
Current testing is indirect and NOT always reliable—therefore, a clinical diagnosis is required.
Lyme: How to Treat

General Treatment
1. Craniosacral therapy 1x/week
2. Acupuncture 1x/week
3. Nutrition Appt (Plant Based Paleo, Gluten Free, Anti Inflammatory)
4. Antibiotics as prescribed by LLMD
5. Physical Activity

Supplements/Herbals
- Gut Protocol, plus: Buehners, Cowden, Zhang herbals
- Cats Claw/Samento
- Japanese Knotweed
- Andrographis
- Artemesia
- Grapefruit seed extract
- Banderol
Gut microbiota
Gut Microbiota Modulates Adaptive Cell Therapy via CD8a Dendritic Cells and IL-12

Authors: Mireia Uribe-Herranz, Kyle Bittinger, Stavros Rafail, Sonia Guedan, Stefano Pierini, Ceylan Tanes, Alex Ganetsky, Mark A. Morgan, Saar Gill, Janos L. Tanyi, Frederic D. Bushman, Carl H. June, and Andrea Facciabene

Collectively, our findings demonstrate an important role played by the gut microbiota in the effectiveness treatment by altering the gut microbiota.

Fecal Transplants Made (Somewhat) More Palatable

OpenBiome, the first stool bank in the country which distributes fecal samples from healthy donors to help cure people with tenacious C. difficile infections.
Microbiome
GUT PROTOCOL

One of the most important components to patients’ success is a healthy gut.

Probiotics are key: short chain fatty acid butyrate by lactic acid bacteria stimulates GST production in intestinal cell wall.
The best time for taking an Enema is in the evening, just before bed.
Nutrition

Ketogenic Diet

Paleo Diet

Anti Inflammatory Diet
Effects of a very low-fat, vegan diet in subjects with rheumatoid arthritis.

Conclusion: Patients with moderate-to-severe RA, who switch to a very low-fat, vegan diet can experience significant reductions in RA symptoms


A vegan diet free of gluten improves the signs and symptoms of rheumatoid arthritis: the effects on arthritis correlate with a reduction in antibodies to food antigens.

Hafström I1, Ringertz B, Spångberg A, von Zweigbergk L, Brannemark S, Nylander I, Rönnelid J, Laasonen L, Klareskog L.
Balancing Treatment

Detoxification

Treatment
Detoxification

Sources of Toxins/Toxicants

- Naturally Existing (toxins) mold
- Man Made (toxicants) heavy metal exposure
- Air (smog, chemical compounds)
- Food, water
- Carpets
- Pharmaceuticals
- Bacteria die-off during treatment

Means of Detoxification

- Supplements
  - Glutathione
  - NAC
- Chlorophyll related supplements: cilantrogen, charcoal
- Infrared Sauna /LOW LEVEL LIGHT THERAPY
- HBOT
- Hydration
- Physical activity
Vitamin C: powerful antioxidant, pro-oxidant and detoxifier

- Involved in tyrosine metabolism and is a cofactor in the synthesis of carnitine, thyroxin, norepinephrine, dopamine, and tryptophan.
- Vitamin C metabolic processes include oxidation-reduction reactions and cellular respiration, carbohydrate metabolism, synthesis of lipids and proteins, catabolism of cholesterol to bile acids, conversion of folic acid to folinic acid, and iron metabolism.
- Vitamin C deficiency can cause fatigue, personality changes, and decline in psychomotor performance and motivation within 84 to 97 days.

Vitamin C is a commonly used water-soluble vitamin. Although many mammals can produce vitamin C, humans must obtain vitamin C from foods and other sources.
Intravenous ascorbic acid infusion may positively impact multiple organ failure and biomarkers of inflammation and endothelial injury.

In ascorbic acid infused patients there was no significant rise in thrombomodulin, suggesting attenuation of vascular endothelial injury.
TX ROUND 1:
1. Ceftin/Mino/Doxy
2. Plaquenil/Flagyl/Tin
3. + or − Amoxicillin/Azithro/Clarithromycin
4. Gut protocol and supplements, Oregano oil
DURATION: 3 months (up to 2 abx combos)

TX ROUND 2: “Restorative Phase”
1. Off all antibiotics for 2-4 weeks
2. IV Myers – nutritional vitamin treatment
3. Glutathione push/NAC
4. Craniosacral Therapy and/or Acupuncture
5. Naturopath Appointment
*Consider alternate diagnosis*
DURATION: 1 month

TX ROUND 3: “Herbal Phase”
1. Continue oral abx at a tapered down dosing for 2 months (if necessary)
2. Overlap last round of abx with herbal regimen
3. Taper off abx while on herbal regimen
4. Ensure you continue lifestyle changes (diet, etc)
5. TCM Consultation
DURATION: 6 months

TX ROUND 4: “IV THERAPY”
1. Rocephin 2g 4-5x per week
2. Includes oral antibiotics
3. HBOT
4. Supplements And/or persister drugs
DURATION: 2 months

IF TREATMENT FAILS:
Co-infection, mold heavy metal testing
Expand Differential diagnosis

0% better
50% better
100% better
0% better
50% better
100% better
0% better
50% better
100% better
0% better
50% better
100% better
0% better
50% better
100% better

“LYME TRAVEL MAP”
# CO-INFECTIONS: The Symptoms of Babesia in Tiers

## Tier 1

**SYMPTOMS**
- Drenching sweats/chills
- Air Hunger
- Severe headache

*Typically appear within 1-2 weeks of infection, or cyclically throughout infection*

## Tier 2

**SYMPTOMS**
- Testicular pain/pelvic pain
- Urinary frequency
- Kidney issues

*Appear after 3 months of infection*

## Tier 3

**SYMPTOMS**
- Axillary pain
- Rib pain
- Chest pain

*Appear in the more severe cases of Babesia, typically after infected more than 6 months without treatment*
**Babesia: What to Look For**

**Step 1**
- **PHYSICAL EXAM**
  - Head palpitation pain
  - Inflamed (hot) tissue
  - Occipital tenderness
  - Air hunger that is not consistent with oxygen saturation

**Step 2**
- **LABS TO ORDER**
  - CBC/CMP, G6PD, Homocysteine (then MTHFR if abnormal), Vit D, B12, B6, specialty labs, IGeneX, EBV, TSH, Iron
  - **Common lab results**
    - Low WBC
    - High Platelet
    - Mild Anemia
    - Creatinine levels

**Step 3**
- **IMAGING**
  - CT with and without contrast
  - MRI with contrast
Babesia: How to Treat

General Treatment:
1. Craniosacral therapy 1x/week
2. Acupuncture 1x/week
3. Nutrition Appointment
4. Antibiotics
5. Physical Activity

Supplements:
- Gut protocol
- Artemesia
- Cryptolepsis
- Pinella
- Teasel root
- Magnesium
- CBD oil
- Liposomal Artemesia
CO-INFECTIONS: BABESIA

Patient enters practice with symptoms

TX ROUND 1:  
1. Coarten/Malarone/Mepron/Quinine  
2. Clindamycin/Zithromax  
3. Gut protocol and supplements  
DURATION: 3 months (up to 2 abx combos)

TX ROUND 2: “Restorative Phase”  
1. Off all antibiotics for 2-4 weeks  
2. IV Myers – nutritional vitamin treatment  
3. Glutathione push/NAC  
4. Craniosacral Therapy and/or Acupuncture  
5. Naturopath Appointment  
*Consider alternate diagnosis*  
DURATION: 1 month

TX ROUND 3: “Herbal Phase”  
1. Continue oral abx at a tapered down dosing for 2 months (if necessary)  
2. Overlap last round of abx with herbal regimen  
3. Taper off abx while on herbal regimen  
4. Ensure you continue lifestyle changes (diet, etc)  
5. TCM Consultation  
DURATION: 6 months

TX ROUND 4: “IV”  
1. Rocephin 2g 4-5x/wk  
2. IV Zithromax 2x/wk  
3. IV Atovaquinone / Artemesia  
1. Includes oral antibiotics and supplements  
DURATION: 2 months

IF TREATMENT FAILS:  
Co-infection testing  
Differential diagnosis
# CO-INFECTIONS: The Symptoms of Bartonella in Tiers

<table>
<thead>
<tr>
<th>Tier 1</th>
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<td><strong>SYMPTOMS</strong></td>
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<td><strong>SYMPTOMS</strong></td>
</tr>
<tr>
<td>• Psych issues</td>
<td>• Bruising</td>
<td>• Worsening of Tier 1 and 2 symptoms</td>
</tr>
<tr>
<td>• Panic Attacks</td>
<td>• Neuropathy</td>
<td></td>
</tr>
<tr>
<td>• Ocular Headache</td>
<td>• Burning tongue</td>
<td></td>
</tr>
<tr>
<td>• Electric nerve impulses</td>
<td>• Fevers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Small joint pain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• GI Issues (in children)</td>
<td></td>
</tr>
</tbody>
</table>

- Typically appear within 1-2 weeks of infection, or cyclically throughout infection
- Appear after 3 months of infection
- Appear in the more severe cases of Bartonella, typically after infected more than 6 months without treatment
**Bartonella: What to Look For**

**Step 1**
- **PHYSICAL EXAM**
  - Stretch marks
  - Plantar pain
  - Lymphadenopathy
  - History of cat or animal scratches or flee exposure

**Step 2**
- **LABS TO ORDER**
  - CBC/CMP, G6PD, Homocysteine (then MTHFR if abnormal), Vit D, B12, B6, Galaxy labs, IGeneX, EBV, TSH, Iron
  - **Common lab results**
  - Conventional positive bartonella testing

**Step 3**
- **IMAGING**
  - CT with and without contrast
  - MRI with contrast
  - Also, psych consult
Bartonella: How to Treat

**General Treatment:**
1. Craniosacral therapy 1x/week
2. Acupuncture 1x/week
3. Nutrition Appointment
4. Antibiotics
5. Physical Activity

**Supplements:**
- Gut Protocol
- MC-BARI
- blt
- Fish Oil
- Magnesium
- Kava
- Calm PRT
- Rhodolia
- Holy Basil
- Milk Thistle
- Resveratrol Plus
- Hawthorne
- Japanese Knotweed
CO-INFECTIONS: BARTONELLA

TX ROUND 1:
1. Doxycycline/Zithro
2. Bactrum/Rifampin/Cipro
3. Pharma/Herbal psychiatric treatment Counseling
4. Gut protocol and supplements

DURATION: 3 months (up to 2 abx combos)

IF TREATMENT FAILS:
Co-infection testing Differential diagnosis

TX ROUND 2: “Restorative Phase”
1. Off all antibiotics for 2-4 weeks
2. IV Myers – nutritional vitamin treatment
3. Glutathione push/NAC
4. Craniosacral Therapy and/or Acupuncture
5. Naturopath Appointment *Consider alternate diagnosis*
DURATION: 1 month

TX ROUND 3: “Herbal Phase”
1. Continue oral abx at a tapered down dosing for 2 months (if necessary)
2. Overlap last round of abx with herbal regimen
3. Taper off abx while on herbal regimen
4. Ensure you continue lifestyle changes (diet, etc)
5. TCM Consultation
DURATION: 6 months

TX ROUND 4: “IV THERAPY”
1. IV Rocephin 4x/wk
2. IV Bactrum 4x/wk
3. IV Zithro/Levaquin
4. Includes oral antibiotics/supplements
DURATION: 2 months

TX ROUND 2:
0% better
50% better
100% better

TX ROUND 3:
0% better
50% better
100% better

TX ROUND 4:
0% better
50% better
100% better

IF TREATMENT FAILS:
Co-infection testing Differential diagnosis

CO-INFECTIONS: BARTONELLA
PZA for Persistent Infection

**PZA:**

1. More effectively kills older, persistent bacteria under low oxygen conditions
2. Poor activity for growing bacteria

**Mechanism of Action:**
- Disrupts cell membrane and energy transport
- Blocks protein synthesis

**Side Effects:** Hepatotoxicity

**Duration:** 2 months (protocol based on current tuberculosis therapy)
HBOT: Indications and treatment protocols
Focused Infrared therapy: Indications and focused protocols
**THE GLOBAL APPROACH – WHY??**

**Goal:** Tying everything together

- **SUPPORT**
  - Decreased stress
  - Spiritual Connections
  - Increased resilience for positive outcomes

- **GUT PROTOCOL**
  - Generate Good bacteria
  - Increase your immune function
  - Improve treatment results
  - Kill the bugs!
  - Targets specific bacteria
  - Short term attack for long term efficacy

- **SUPPLEMENTATION & NUTRITION**
  - Enhances your body’s natural function
  - Less toxic and more sustainable
  - Food is medicine
  - Non pharmaceutical ally in the fight against bacteria

- **PRESCRIPTION MEDICATION**
  - Enhanced your body’s natural function
Keep in Touch

Thank You!