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BORRELIA AND CO-INFECTION CHECK LIST

UNDERLINE OR CIRCLE THE SYMPTOMS OR THE SIGNS YOU HAVE HAD IN THE PAST 2 MONTHS. NOTE HOW LONG AGO OR HOW OLD YOU WERE (MONTH AND YEAR) SINCE YOU HAVE HAD THESE SYMPTOMS OR SIGNS, IF YOU HAD SYMPTOMS OR SIGNS LONGER AGO THAN 2 MONTHS.

Babesia (Babesiosis) infection:

Babesia is a parasite and is a co-infection of Borrelia burdorferi.

Babesia is a protozoan spread by ticks, blood transfusion, the placenta and breast feeding. Despite there being 13 known forms to date, current testing only looks for two of them.

Babesia causes mental/emotional symptoms. Babesia affects the head/brain more so, where as Bartonella affects the gut and joints (and also the head, since Bartonella can cause seizures). Babesia can also cause the following symptoms which--

- Abnormal sensations of hand and feet
- Air hunger (need to breathe in more deeply, need to open the windows, feel as if can not get enough air/oxygen)
- Appetite swings
- Dizziness, vertigo, racing heart (worse at night) to pre-ventricular contractions (skipped beat then large beat)
- tachycardia (fast heart rate)
- Cough
- Difficulty with directions, gets lost in familiar place
- Difficulty with simple linear thinking
- Fatigue
- Fear, obsessive compulsive disorder, anxiety or panic
- Fevers
- Foot pain
- Gastrointestinal dysmotility (constipation, irregular movement of gastrointestinal tract, suboptimal contraction and/or coordination of gastrointestinal contractions)
- Headache
- Hemolysis (red blood cell rupturing)
- Difficulties with balance
- Intermittent blurred vision
- Intolerance to hot and cold, with chills being dominant
- Mild encephalopathy (slow brain waves/ almost lethargic)
- Mild fluid imbalance (overloaded or dehydrated)
- Migraines (throbbing headaches)
- Occasional fever
- Orthostatic hypotension (light headed when moving from laying to sitting or laying to sitting and standing) and rare hypertension (high blood pressure) when laying supine
- Pressure sensation (more than headache) behind eyes, top of head or back of head
- Sensations in head, hot spots, numbness, crawling, crown tenderness

Babesia (Babesiosis) continued

Severe depression

Severe sleep disturbance, delayed sleep onset, frequent waking, difficulty falling back to sleep

Shaking chills

Shortness of breath

Suicidal ideation

concentration difficulties, short term memory deficits, progressive disabling memory difficulties

Sweats, drenching, worse at night

Tinnitus (ringing of the ears)

Vice like sensations to wrists, ankles

Weird dreams to nightmares

Wrist/hands/ankles/feet: may have abnormal temperature sensations, pain, burning, or numbness

Bartonella (involves brain, gut and skin connect tissue)

Bartonellosis (also known as cat scratch fever)

Spread by bites from infected ticks and in utero

Abnormal liver enzymes

Bartonella-sole pain of the foot, ankle pain

Crawling, burning, multiple sensations

Encephalopathy (slow brain waves/ lethargic)

Endocarditis (inflammation of the inner lining of the heart)

Feet: sensitive, painful soles, worse getting out of bed, pain with standing usually bilateral (both sides)

Flu-like malaise

Headache severe ice pick in and around eyes, migraine

Hemolysis (ruptured blood cells) with anemia

Hepatomegaly (enlarged liver)

High fever

Immune deficiency, Weakened immune response

Jaundice (yellowing of the skin and eyes)

Lymphadenopathy (lymph nodes, which are abnormal in size, number, or consistency)

Liver: mildly elevated liver enzymes (AST, ALP), mild hepatomegaly, gallbladder dysfunction, GERD, upper right belly pain

Milder problem with Cognitive, memory, emotion sx but not as disabling as babesia

Myalgias (muscle pain)

Myocarditis (inflammation of middle layer of the heart wall)

Lymphatic, mild splenomegaly, boggy lymphadenopathy, seldom hard, but often painful

Pain in joint(s) (knees, large or small joints) wandering, unilateral, can be swollen, seldom not, periarticular (around the joints), minor joint trauma takes forever to heal

papular or angiomatous rash, painful bones of feet, foot and ankle can both be painful

Skin: rashes, papular, stria on abdomen and upper legs, acne crusty

Somnolence (sleepiness/drowsiness)

Sore throat

Splenomegaly (enlargement of the spleen)

Subcutaneous nodules (nodules under the skin), can be tender

Worse cervical chains, popliteal fossa, vague tightness chest, puffy above the clavicles L>R Eyes

conjunctivitis pain in and around eyes, intermittent blurred vision

Bartonella sole pain, ankle pain

Borrelia heel specific pain

Ehrlichia **(Ehrlichiosis)**

Bites from infected ticks

Elevated liver enzymes

Headaches are sharp, knife-like, and often behind the eyes.

Muscle pain, not joint pain, and can be mild or severe.

Low WBC count, elevated liver enzymes, and (rarely) inclusions seen in the WBCs.
ongoing fatigue

Persistent leucopenia

Rarely see diffuse vasculitic rash, including palms and soles (less than 10%).

Rapid onset of initial illness with fever, headache, prostration.

Rapid response to treatment.

Thrombocytopenia

Protomyxzoa rheumatic (by Ann Corson, MD 02 15 2012)

Signs and symptoms

Abdominal pain, nausea, IBS (irritable bowel syndrome)

Anxiety, panic, OCD (obsessive compulsive disorder), irritability, agitation, impulsivity, ADD (attention deficit disorder), emotional

Bladder pain/dysfunction, interstitial cystitis (inflammation in the bladder wall)

Cold hands and feet, often clammy

Dizziness

Headaches, pain behind/in eyes

Hypercoagulability (thick blood when drawing blood, tends to clot or sluggish blood flow)

Insomnia, profound brain fog,

Joint and muscle pain, twitches

Palpitations (feels heart beat, note if irregular fast or slow)

PND (paroxysmal nocturnal dyspnea) (shortness of breath, sudden onset, at night)

Poor to "pathetic" capillary refill, skin color changes pale, dusky, hyperemic (red), purple, mottled

Poor Balance

Profound fatigue, complete loss of aerobic exercise tolerance

Scalp sores

Sinus congestion,

SOB, air hunger, dry cough, episodic and periodic

Sweats (night/day), chills, flushes

Teeth pain

Weakness

Other: DNA VIRUSES (HHV-6, EBV, CMV)

- Persistent fatigue, made worse with exercise.
- Sore throat, lymphadenopathy, and other viral-like complaints.
- May see elevated liver enzymes and low WBC counts.
- Autonomic dysfunction.

Name: _____

Date: _____

CHECK LIST OF CURRENT SYMPTOMS: This is not meant to be used as a diagnostic scheme, but is provided to streamline the office interview. Note the format- complaints referable to specific organ systems and specific co-infections are clustered to clarify diagnoses and to better display multisystem involvement.

Have you had any of the following in relation to this illness? (CIRCLE "NO" OR "YES")

Tick bite N Y "EM" rash (discrete circle) N Y
 Spotted rash over large area N Y Linear, red streaks N Y

Borrelia heel pain N Y

SYMPTOM OR SIGN	CURRENT SEVERITY				CURRENT FREQUENCY				
	NONE	MILD	MODERATE	SEVERE	NA	NEVER	OCCASIONAL	OFTEN	CONSTANT
Persistent swollen glands									
Sore throat									
Fevers									
Sore soles, esp. in the AM									
Joint pain									
Fingers, toes									
Ankles, wrists									
Knees, elbows									
Hips, shoulders									
Joint swelling									
Fingers, toes									
Ankles, wrists									
Knees, elbows									
Hips, shoulders									
Unexplained back pain									
Stiffness of the joints or back									
Muscle pain or cramps									
Obvious muscle weakness									
Twitching of the face or other muscles									
Confusion, difficulty thinking									
Difficulty with concentration, reading, problem absorbing new information									
Word search, name block									
Forgetfulness, poor short term memory, poor attention									
Disorientation: getting lost, going to wrong places									
Speech errors- wrong word, misspeaking									
Mood swings, irritability, depression									
Anxiety, panic attacks									
Psychosis (hallucinations, delusions, paranoia, bipolar)									
Tremor									
Seizures									
Headache									
Light sensitivity									
Sound sensitivity									
Vision: double, blurry, floaters									
Ear pain									

Name: _____

Date: _____

SYMPTOM OR SIGN	CURRENT SEVERITY				CURRENT FREQUENCY				
	NONE	MILD	MODERATE	SEVERE	NA	NEVER	OCCASIONAL	OFTEN	CONSTANT
Hearing: buzzing, ringing, decreased hearing									
Increased motion sickness, vertigo, spinning									
Off balance, "tippy" feeling									
Lightheadedness, wooziness, unavoidable need to sit or lie									
Tingling, numbness, burning or stabbing sensations, shooting pains, skin hypersensitivity									
Facial paralysis-Bell's Palsy									
Dental pain									
Neck creaks and cracks, stiffness, neck pain									
Fatigue, tired, poor stamina									
Insomnia, fractionated sleep, early awakening									
Excessive night time sleep									
Napping during the day									
Unexplained weight gain									
Unexplained weight loss									
Unexplained hair loss									
Pain in genital area									
Unexplained menstrual irregularity									
Unexplained milk production; breast pain									
Irritable bladder or bladder dysfunction									
Erectile dysfunction									
Loss of libido									
Queasy stomach or nausea									
Heartburn, stomach pain									
Constipation									
Diarrhea									
Low abdominal pain, cramps									
Heart murmur or valve prolapse?									
Heart palpitations or skips									
"Heart block" on EKG									
Chest wall pain or ribs sore									
Head congestion									
Breathlessness, "air hunger", unexplained chronic cough									
Night sweats									
Exaggerated symptoms or worse hangover from alcohol									
Symptom flares every 4 wks.									
Degree of disability									

This list is provided by Joseph Burrascano, MD, Internist, (Ret.)