

Lyme Disease – Guidelines for Coping with Lyme and Associated Conditions.

By Doreen Connolly, SRN, SCM, CAM Practitioner

Lyme disease, borne from a very distinctive insect bite, is a multi-systemic disease caused by the spirochete *Borrelia burgdorferi* (Bb). Over the years it has developed into a major health problem. It was first investigated in 1975 by a group of Yale physicians and whilst information was sparse initially, it was identified as juvenile arthritis. This research took place in Old Lyme in the State of Connecticut, hence the common name Lyme Disease. It was in the early 1980s when the first breakthrough was made. Dr. Willy Burgdorfer identified a causative agent, a thin spirochete resident in the salivary glands and midguts of deer ticks. It was named in his honour, *Borrelia burgdorferi*.

Over the years various researchers identified other tick-borne bacteria and toxins which frequently accompany Lyme symptoms. Examples include *Babesia*, *Bartonella*, *Toxoplasmosis*, *Mycoplasma* or even rarer species.¹ It is now accepted that other mammalian species are carriers of Bb and related infectious agents.

The spirochete, a group of spiral-shaped bacteria, rapidly becomes resistant as they have the ability to convert from their vegetative form into different round bodies. These develop colonies which are surrounded by a protector which scientists describe as a biofilm. Dr. Eva Sapi, a research scientist, describes Bb as having the ability to continually transform itself from spirochete to a cystic or granular cell wall deficient structure.² In separate studies Prof Bruce Lipton reports that Cell Biologists have studied bacterial life forms, particularly the prokaryotes which is amongst the lowest forms of life, and found that they recognise and invite other species to co-operate, co-habit and recognise food sources and are propelling themselves towards it.² They can recognise toxins and predators and can employ escape manoeuvres to avoid those dangers. In other words bacterium displays intelligence. In their own way they recognise their ideal host, the depleted immune system. The formation of colonies is part of the protection and development process. Apart from attracting other bacteria such as streptococci, these colonies also attract virus strains such as Epstein - Barr. Antibiotics will have little effect on these at this stage either, as they will be protected by the bio-film. Stress, sudden shock and further depletion of the immune system can have the *Borrelia* reverting back to the spirochetal form and then all the symptoms occur again but not necessarily in the same place. This cycle can go on for many years. The progression can be rapid or it can be gradual.

The spirochetes themselves have a double membrane or diderm. These are made up of peptidoglycan and flagella along with about 40% DNA therefore showing great diversity. The nymphal stage of the tick cycle is usually where the infection occurs as they are very small (about the size of a poppy seed) and can feed for long periods undetected.

When the nymph attaches to the host, it ejects the *Borrelia burgdorferi* from the mid-gut into the salivary glands which appears to have an immunosuppressive action (effectively enhancing the infection) thus preventing the host from feeling any itch or pain for some time. The spirochetes then multiply rapidly migrating outwards within the dermis causing the “bulls-eye” lesion. Due to the immunosuppressive saliva, the host’s immune system fails to prevent the infection spreading throughout the body.

In the neurological form of the disease the Bb take up residence in the soft tissues of the spine, brain and other nerve tissues. The hypothalamus is the part of the brain chosen in most cases as it is well protected by the rest of the brain and cannot be diagnosed with scans. Having an MRI scan on the spine will show up lesions which mimic Multiple Sclerosis plaques.

Long-term exposure to these spirochetes causes an auto-immune reaction in the body. Even after they are totally eliminated, residues of what appears to be M.S., rheumatoid arthritis, fibromyalgia, chronic fatigue syndrome or lupus need to be treated although they usually show a marked improvement after the Bb has been dealt with.

Approximately 3-30 days after the bite, patients will experience flu-like symptoms - fever, chills, swollen lymph glands, headaches, muscle aches and joint pain. However not everyone with Lyme disease will have all the symptoms and asymptomatic infections may be more common among those affected in Europe than America. The *Centre for Disease Control* in the US reports that approximately 30,000 new cases of Bb are now diagnosed every year. The increasing rate of diagnosis now suggests that the origins are not only deer. It is possible that a variety of blood-sucking ticks can carry the infection from other sources. Some medical literature suggests that the infectious agent may even survive in the residue of the bio-filmic slime found in shower trays. People with low immunity could easily pick up this infection from a chronic Lyme sufferer through broken skin. Lumps may appear in any site that bears no relation to the bite. Neurological problems called neuroborreliosis appear in about 10-15% of patients. Other symptoms include facial palsy, loss of muscle tone on one or both sides of the face, meningitis, headache and sensitivity to light.

Symptoms of Lyme Disease

With the likelihood of several co-infectors such as those mentioned above, it is also possible to identify fungal infections, other candida species, food and environmental toxins and stress. Acidosis becomes an issue, further adding to the toxic load. Unsurprisingly, symptoms resembling Alzheimer's disease, Parkinson's disease, fibromyalgia and chronic fatigue syndrome are exhibited. Once the Lyme infection is identified and successfully treated, the other symptoms should "magically" resolve. However if it is not resolved, one can expect concentration problems, irritability, depression, chronic fatigue, muscle pain, memory and sleep disorders, heart problems and nerve disorders. These may even manifest years later. Radiculoneuritis, another unpleasant symptom, refers to a set of conditions in which one or more nerves is affected and does not work properly. The emphasis is on the nerve root. This can result in pain, weakness, numbness, or difficulty controlling specific muscles. Long-term symptoms are chronic, affecting many parts of the body. This can cause severe disabilities. Chronic encephalomyelitis may be progressive, causing cognitive impairment, leg weakness, awkward gait, facial palsy, bladder problems, vertigo and back pain.

Practitioners should be aware that Lyme infection signals the body to create a layer of protein called fibrin which impairs oxygen transportation from blood cells to the tissues. White blood cells activated by the infection release inflammatory cytokines which are implicated in hypercoagulability states.³ As a result, the clusters cannot be easily penetrated by white cells, antibiotics, or anti-microbial herbs. If the spirochete penetrates the hypothalamus all sorts of neurological symptoms may arise, from mild to very severe psychiatric problems. These include the slow processing of both visual and auditory information, short and long-term memory difficulties, word finding, word generation and communication difficulties. This severity leads to psychosis, seizures, anxiety, rage attacks and rapid mood swings that mimic bipolar illness. The inability to tolerate alcohol may also be experienced. Some researchers in America consider that 50% of Alzheimer's could be attributed

to unresolved Lyme infection. As the hypothalamus is part of the limbic system some sufferers may experience problems with temperature control and sleep disruption due to a burning-up feeling especially at night. This is often confused with the menopause. Both male and female hormonal problems may also be exhibited.

Testing for Lyme Disease

Lab cultures are considered the most reliable method of testing in the infectious arena but with Bb being difficult to sample and probably very expensive, no reliable culture exists. So at present there are no foolproof blood tests to diagnose this mysterious illness. Even if *Borrelia burgdorferi* is present but in its dormant state, false negatives are common. Hopefully we will see the day when reliable and repeatable tests emerge. Micro-organisms such as bacteria come in a variety of sub species. For example, there have been 100 species of *Babesia* and 26 species of *Bartonella* already identified. Of these, only two of each have a suitable test to identify them.¹ www.ticktalkireland.org outlines a number of the test procedures currently available and there are others not listed. Practitioners in this field find that most of those have shortcomings. For instance, the ELISA test provides a high proportion of false negatives. The Immunoblot differs and shows an immune response in the form of antibodies against *Borrelia burgdorferi*. IgM antibodies are a sign of persistent chronic infection. *Borrelia* elispot – Itt, the Lymphocyte Transformation Test demonstrates the actual T-cellular activity of the Bb.

Infectolab in Augsburg, Germany provide a blood test for Bb and certain associated infectious agents. This is a valuable service and again, it is my hope that every country will have such services in the future.

Treatments for Lyme Disease.

If the condition is medically diagnosed then antibiotics will be the standard treatment. The drug-of-choice is vibromycin, which is given orally for a year. Intravenous antibiotics like Ceftriazone may need to be repeated until symptoms disappear. It seems that the spirochete rapidly becomes resistant however, converting from the vegetative form to the round bodies in biofilm like colonies. Scientists initially thought that the biofilm protected the cluster and that higher concentrations of antibiotics were the solution. However, it is now thought that the colony itself is the protector with the outer layer protecting the inner layer of infectious agents, which is then left to grow and multiply.³

What is the solution? From CAM practitioner Doreen Connolly's own personal experience, she believes in the holistic health approach - cleansing, detoxification, rebuilding key organs and rebuilding the immune system to guard against recurrence. For this reason it is recommended that the treatment, whether it be conventional, complementary or integrative, should be continued for at least one year post symptoms. Special attention should be paid to all scars. Misalignments of the skeletal system should be rectified. Support of the lymphatic system is essential. Psychiatric help and/or emotional support should be recommended where needed. In some cases the patient may experience excessive side effects from conventional medicine so other forms of treatment should be suggested. Sulfa drugs describe a class of antibiotics known as sulfonamides. Members of this antibiotic class include sulfadiazine and sulfamethoxazole. These medications can be used to treat a

variety of bacterial infections, but their use can be limited due to the potentially serious side effects that they can cause.

There are a wide range of complementary choices available. In the USA, one well-known programme, the Cowden Support Program, not only aims to kill off the infection but to build up the immune system and give support to all the body. Botanical supports are recommended which can be prepared in homoeopathic or imprinted form. Astragalus, cats claw and ashwagandha are amongst the most helpful herbs. Silver, long known as a good antibacterial agent, is also considered useful during treatment for Bb. Serrapeptase is recommended as an anticoagulant.⁴

Homoeopathy has the advantage as energetic medicine detoxifies at a cellular level and is believed to disturb the colony in its outer and inner layers. The New Vistas homoeopathic range is very helpful and covers many of the requirements to identify, treat and rebuild organs and body systems. Use Vermex as early as possible. Detoxing and supporting key organs and body systems is very important. Where possible, test for other xenobiotics, liquescences, anti-microbials, glutathione, chlorella, spirulina, garlic and Beta Glucans, which may offer extra support. Many cases will need the Borrelia homocord.

It is also thought that mercury fillings cause blockages but unless the removal is done by a very experienced dentist the procedure can cause a lot more problems. Digestive disturbances and adrenal fatigue are all part of Lyme infection. Omega 3 and Omega 6 are essential as blood and brain tonics. Developing an alkaline diet to improve the body's pH level is a critical element in recovery. Drinking 3 litres of water a day aids the removal of the toxins as dehydration impairs the elimination process. Quality sleep and rest are also essential during the recovery process.

References and Resources

1. Wayne C Anderson, ND – Townsend Letter – Issue 347, pgs 82-93, June 2012
2. Eva Sapi, PhD – University of New Haven, Connecticut – <http://dx.plos.org/10.1371>
3. Bruce Lipton, PhD – Biology of Belief – Elite Books – ISBN -0-9759914-7-7
4. Dalal Akoury, MD – Townsend Letter – Issue 360, July 2013

Links:

- www.ticktalkireland.org
- lymedocs@aol.com
- www.mentalhealthandillness.com
- www.bionatus.com/nutramedix/pages/lymepage.html
- Email address for Dr. Eva Sapi, University of New Haven - esapi@newhaven.edu
- InfectoLab - offers laboratory diagnostic tools for tick-borne diseases. Email: service@infectolab.de

Doreen Connolly has dedicated almost 50 years to both the complementary and medical fields of medicine. Originally a trained nurse, she continued her studies and spent time as a midwife, an industrial nurse and in the neurology department. Her quest for optimal care led her down the CAM path and having studied extensively, Doreen opened her own clinic in 1990, the Cedar Lodge Health Clinic. She is trained in Vega testing and can be credited for bringing Jin Shin Jyutsu, the physio-philosophy, to Ireland. She currently uses a Bio-Resonator machine for testing her clients and to this day is still busy helping others to heal themselves.