

# **Lyme Disease: The Chronic Controversy**

## **Lyme Background**

Lyme disease, a multi-system infection with an organism known as *Borrelia burgdorferi* can affect patients with over 100 different and wide ranging symptoms, and is infamous for being under diagnosed and misdiagnosed. Though once thought to be exclusively contracted via the bite of an infected tick, it has now been established that mice, biting flies, spiders and mosquitos are also carriers. Conventional treatment with antibiotics is challenging and one of the many things that stand between the patients who are infected, and their successful recovery. It's not uncommon to find Lyme patients who have been suffering for 10 or more years, shuffled from one misdiagnosis to another while their condition continues to escalate.

## **False Negative Testing Perpetuates Chronic Lyme**

The challenges for individuals who contract Lyme disease begin with the tests themselves and largely contribute to the increasing prevalence of chronic Lyme. According to Dr. Alan MacDonald, standard testing for Lyme disease in the U.S. has major flaws, referring to these flaws as "remarkable," he states that standard testing is only sensitive to one strain of *Borrelia*, the bacteria responsible for Lyme, of the over 100 strains identified. He also states that this particular strain, known as B31, has never been found in a human, but instead was identified only in the gut of a tick. Technically speaking, there is no evidence to support B31 is even transmitted to humans.

## More Problems with Lyme Disease Tests

Testing for only one strain presents additional challenges to accurate diagnosis since different strains exist per country. The patients who contract Lyme disease in Europe and test in the US, will test negative even though they are positive. However, individuals who contract Lyme in the US that are tested in Europe will indeed test positive since European Lyme testing includes sensitivity for different strains found globally, including those in the U.S. Questions that arise over these and other sub-standard protocols employed by the US, have been the subject of controversy since Lyme was first discovered. Still, not much has changed.

Alzheimer and Parkinson's disease expert Dr. Alan B. MacDonald M.D., staff Pathologist at the St. Catherine of Siena Medical Center states: "Microscopic images of cystic spirochetes are difficult to ignore... "Various sized cystic spirochetal profiles within diseased nerve cells explain the following structures: **Lewy body of Parkinson's disease, Pick body, ALS, spherical body, Alzheimer plaque. Borrelia infection is therefore a unifying concept to explain diverse neurodegenerative diseases**, based not entirely on a corkscrew shaped profile in diseased tissue, but based on small, medium and large caliber rounded cystic profiles derived from pathogenic spirochetes, which are hiding in plain sight."

## More things to Consider

Though the existence of chronic Lyme disease was initially rejected by mainstream medicine, more doctors are beginning to recognize it as the

research supporting it, and the ill patients become harder to ignore. The question of chronic Lyme's existence has divided the medical community into 3 distinct groups. On one side are doctors who deny its existence and feel that long-term treatment with antibiotics is unnecessary on patients who are still symptomatic after a short course of oral antibiotics has been given. These patients are sent down a number of different paths; all of which perpetuate the severity of their chronic condition. Patients are either misdiagnosed with another disease that Lyme is known to mimic, or given medications to ease their wide-ranging symptoms that doctors have no answers for. On the other side are the doctors, often referred to as "Lyme literate" or LLD's who treat chronic Lyme with long-term intravenous and/or oral antibiotics. According to these doctors antibiotics have been successful in a large number of patients, though relapses are not uncommon and treatment can last up to a year or longer depending. The third group who also treat chronic Lyme, opt for a holistic approach by supporting the body's own defense system to fight the infection. These alternative methods are focused on repairing the immune system and supporting the body's process of eliminating the endotoxins left behind as the bacteria begin to die. These doctors believe antibiotics are ineffective in cases of chronic or neurologic Lyme and especially in cases of co-infection.<sup>1</sup> The very recent discovery of in-vitro borrelia biofilm led by Dr. Alan MacDonald and his teams of researchers shed light on the controversy, and expose some indisputable truths regarding effective treatment for chronic Lyme.

## **Human Biofilms Confirm Chronic Lyme and Question Conventional Treatment**

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<sup>1</sup> Co-infection is an additional infection present alongside an infection of Lyme disease or other infectious organism that was transmitted at the same time and from the same transmitter as the primary infection

Dr. MacDonald's discovery of borrelia biofilm in-vitro should have been a huge step forward for the Lyme community by exposing 2 indisputable truths. First, biofilms are ALWAYS a marker of chronic infection. In addition, a maxim of infectious communities or biofilms is their ability to withstand various types of attack, including those from antibiotics.<sup>ii</sup> Though the discovery was the first of its kind, it still didn't prove that biofilms existed within human disease; nonetheless it suggested a strong case for its likelihood.

### **Biofilms Make their Debut**

After many attempts to publish the biofilm manuscript without success; PLOS ONE finally accepted it in November 2012 titled "In Vitro Biofilms of *Borrelia Burgdorferi*". Then just two weeks after Dr. MacDonald's publication of the Sapi biofilm study, the Sapi Group at the University of New Haven in West Haven, CT, made the announcement that borrelia biofilms were indeed detected under the microscope in a human skin biopsy from a European patient with cutaneous borreliosis.

Ironically, the controversy and bureaucracy that plague Lyme disease are, much like the disease, chronic, despite the evidence presented by Dr. McDonald and the Sapi Group, including the patients who continue to suffer. The IDSA (Infectious Diseases Society of America) an organization that designs treatment guidelines for infectious disease, maintain their rejection of a chronic Lyme condition, publishing misinformation to the medical community who use it as a guide to treat their Lyme patients. Despite the IDSA claim that treatment guidelines are only suggestions, doctors who practice outside of these guidelines, by treating chronic Lyme with long-term antibiotics, are scrutinized,

leading to a revocation of their license. Consequently, members of the IDSA are present at the hearing to testify against them.

For now, the politics and controversy that surround Lyme disease prevail, with little regard for the patients. But as the research continues to mount, the truth is inevitable. Whether or not the evidence will end the needless suffering of thousands, maybe millions of ill patients, remains to be seen. Without changes to the diagnostic methods of Lyme, and a greater awareness of its existence among doctors, chronic Lyme disease will continue. The fight for proper treatment is an uphill battle against powerful organizations like the IDSA whose guidelines mandate insurance provisions for treatment length. So if finding a doctor to treat chronic Lyme patients is the first difficult step in getting relief, denial of coverage will soon follow, forcing patients to pay out of pocket. For those who cannot afford it, an opportunity for relief borders on the impossible. Many patients report losing everything they once had in exchange for Lyme disease treatment, while others report losing hope that relief is even possible.

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<sup>i</sup> **Medical Hypotheses** Dr. Alan B. MacDonald M.D 10 July 2006 in Volume 67, Issue 4, page 819-832) [Article Link](#)

<sup>ii</sup> **Hard Science on Lyme:** <http://lymedisease.org> Trials and Tribulations of Getting Borrelia Biofilms Accepted for Publication: Dr. Alan B. MacDonald 02, August 2013 [Article Link](#)

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