

Lyme Disease it's evolving and the clock is ticking...

By Jon Inder

'No part of the aim of normal science is to call forth new sorts of phenomena; indeed those that will not fit the box are not seen at all'

*Thomas Khun:
The Structure of Scientific Revolutions*

There is growing concern and confusion over the issue of Lyme Disease both in this country and in the broader global community. You may not have heard of Lyme Disease, and if you have, you may have heard little more about it than that it is a 'rare' condition and one that is caused by infection from tick bites. Worryingly, both of these statements are believed by many Lyme experts to be erroneous - and they believe that the consequences of such false assumptions could be disastrous.

In June of 2004, the U.S. Centre for Disease control and prevention (CDC) passed funding of \$2.9 million to begin a comprehensive survey of Lyme Disease from Maine to Texas, which indicates that someone thinks the problem is a real one. Now many American Doctors are calling for action

to prevent what many believe could be a pandemic (global epidemic).

"Some are calling Lyme the most over-diagnosed disease of our time, while others are claiming that it is the most under-diagnosed. The truth of the matter is that Lyme is far more widespread than has been reported, and hundreds of thousands of people are suffering needlessly due to misdiagnoses and the treatment prejudices of many doctors, the government, and the insurance industry."

(Dr David Williams, 'Alternatives' December 2004, Vol 10, No 18)

Sadly, the story in this country is very similar, with many patients being pushed around from 'specialist' to 'specialist' - none of whom are actually Lyme specialists. Often it is many months before the condition is even recognised, and then it is frequently underplayed.

The first problem here is quite simply that Lyme is hard to see... and to most medical doctors, seeing is believing. Many who have suffered from a Candida Infection or Chronic Fatigue Syndrome have learnt this fact at great

cost, and concerns over other 'Stealth pathogens' is growing.

The spirochetes (spiral shaped bacteria) that cause Lyme can worm their way into muscles, tendons, and practically every organ in the body. Once imbedded, they can quickly begin to wreak havoc. Over time, they diminish your immune system's ability to mount a proper defence, which opens the door to other pathogens.

Most antibiotics work by destroying the cell wall of bacteria. The *Borrelia burgdorferi* (Bb) bacterium of Lyme, however, can exist without the cell wall typically characteristic of other forms of bacteria, which makes most antibiotics useless against Lyme. The bacteria can also change forms to avoid detection when confronted by elements of the immune system or various antibiotics, and then turn back again when a threat to their survival is no longer present. These unusual properties of Bb have caused an unprecedented amount of confusion in the medical community-and with the public as well.

*Cell Wall Deficient Forms-Stealth Pathogens
by Dr Lida Mattman*

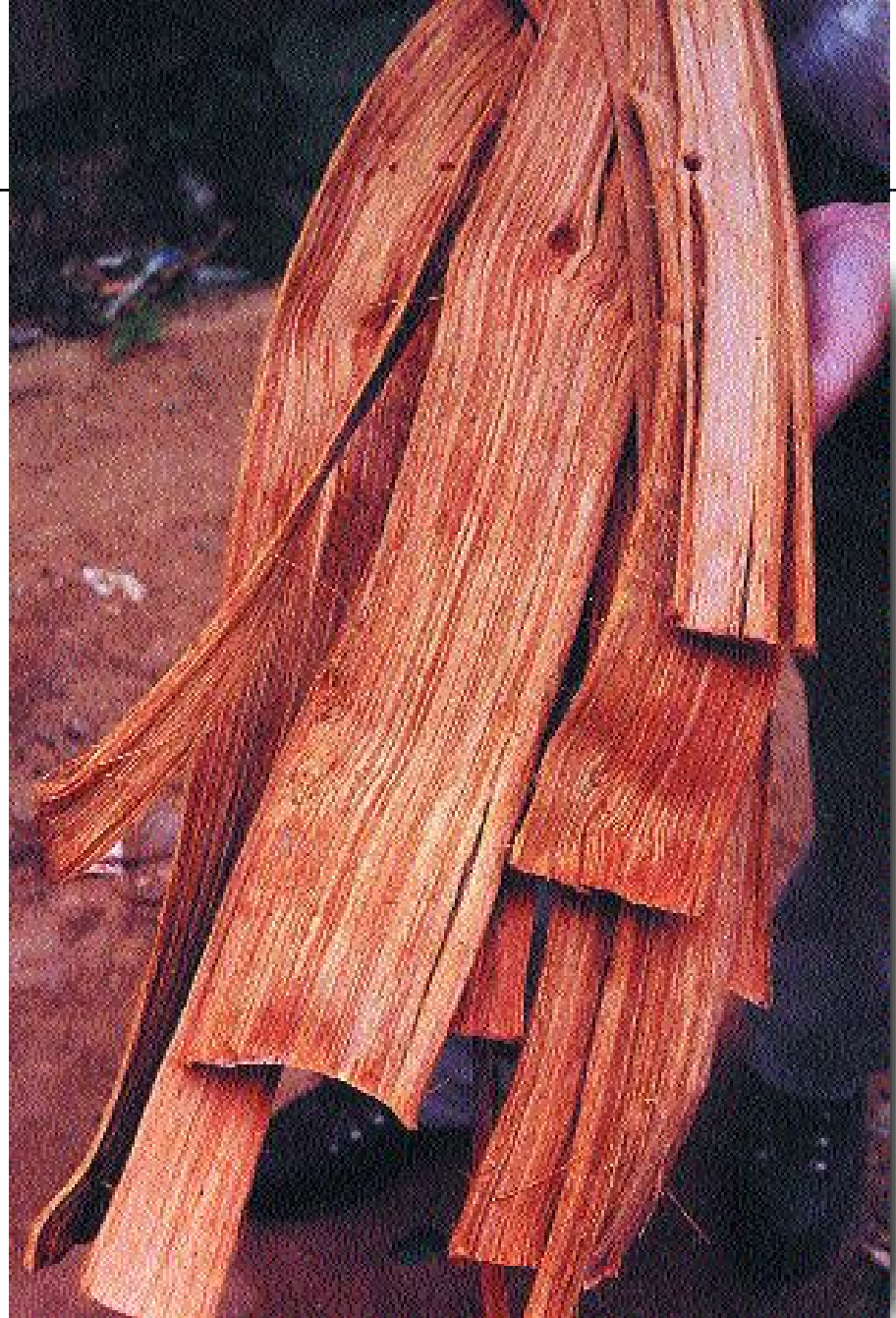
At a recent International Conference in Brighton, Doctors were able to actually present images of these bacteria 'on the move' in different states. These startling images included what appeared to be organisms 'running away' from the light caused by the scanning equipment. This has meant that Lyme often goes undetected until a time (often following a trauma or when immunity is low) when it chooses to 'become active' and therefore visible, again.

The blood tests used in this country (the Elisa and Western Blot) are based on response to antibiotics. If the Lyme is 'hidden' or inactive, then you are not diagnosed with Lyme. But that does not mean you haven't got it. Since the recognised medical definition of Lyme Disease was developed, research has also emerged showing that many of the initial assumptions concerning Lyme were wrong. The 'recognised' signs for the disease itself are leading medical professionals to simply miss it. For example, we now know that the bull's-eye rash following initial infection, originally thought to be the definitive diagnostic sign, may occur in only one-fifth to one-half of patients. Newer research indicates that ticks may be the least of our worries when it comes to contracting Lyme.

Researchers have found live spirochetes of Lyme in fleas, mites, and mosquitoes. And although it was first thought the disease couldn't be transmitted directly from human to human, the live spirochetes have now also been found in blood, urine, tears, semen, breast milk, cord blood, and vaginal secretions. Doctors who specialise in treating the disease are convinced it can be passed from one infected person to another by several means, particularly through repeated sexual contact and passage through the placenta in the womb.

(Rheum Dis Clin North Am 89;15(4):657-77).
More worryingly, the CDC has now admitted what researchers found years ago, that Bb bacteria survive the purification process of donated blood and could be passed through blood transfusions.

(J Infect Dis 90;162(2):557-9)
(Transfusion 89:29(7)6465)



The problem here is that the disease itself is evolving (like TB and Malaria) and it must also be recognised that different forms may exist. Confusions over 'definition' of what is or isn't Lyme Disease have caused suffering to patients - who care more about getting out of bed than defining exactly what condition they have. It has been reported that the problems and symptoms associated with Lyme can mimic over 350 different medical conditions. Doctors learned this fact by watching many of these problems and so-called "incurable" diseases disappear miraculously, sometimes within only 24 to 72 hours after treating their patients for Lyme.

However, as we have already noted, symptoms can come and go - often leading to false assumptions about recovery. The extent of the patients 'viral load' and of the damage caused

by Lyme and co-infections are all variables to be taken into account. One patient we have talked to was told, during a period of remission, that she had 'post Lyme Syndrome,' and was instructed to just rest! Attaching a new name to her plight has not made her feel any better.

Of course the tiredness is not likely to go away if the body's immune system is compromised. In fact, there is a growing body of evidence pointing to a link between Borrelia infection and Chronic Fatigue Syndrome. There are about 150,000 people with Chronic Fatigue Syndrome (CFS) in the UK, many of them (over 25%) with symptoms so severe they are wheelchair bound and unable to work. Like many disabled in our society they are often marginalised and forgotten. In an informal study conducted by the

American Lyme Disease Alliance (ALDA), 90.3% of patients diagnosed with CFS were found to have Lyme Borreliosis. In this country, Dr Andrew Wright, who spoke at the conference in Brighton, is currently involved in research projects with Sheffield and Sunderland universities into the links between bacterial infections and CFS.

The Californian Lyme Disease association (CALDA) state that Lyme Disease has also been misdiagnosed as multiple sclerosis (M.S), amyotrophic lateral sclerosis (ALS), Lupus, Alzheimer's and Parkinson's. All of these conditions are on the increase in the western world. In the U.S. the most common symptom of Lyme was thought to be Rheumatoid Arthritis. This is condition linked to the first modern cases of Lyme, but this is based on the outdated CFC 'definition' of Lyme that fails to recognise that there could be more than one strain of bacteria implicated in the problem, not to mention the highly probable impact of co-infections.

Let us look at a few facts. Scotland, which has the highest incidence of Lyme in the British Isles, also has the largest number of diagnosed cases of M.S. in Europe. Mild winters have led to a huge explosion in the tick population, and in Scotland, increases in tick populations have been so huge that they have led to a drop in the grouse population. Disgruntled game hunters are not really the biggest problem here, £330,000 is spent on diagnosis and treatment of Lymes every year in the Scottish highlands but this could be just scratching the surface. Dr Jo Ann Whitaker, who has developed a new test for Bb, has found that a high proportion of Parkinson's patients have tested positive.

In the United States, the leading microbiologist Dr Lida Mattman who found evidence of Bb spirochaetes in human blood, semen and urine, had her Michigan laboratory closed down after she published her opinion that it was becoming hard to find people who had tested negative to use as control group.

Elsewhere in Europe the issue is at least recognised. In Czechoslovakia, public radio broadcasts have warned the public to look out for ticks, and issued instruction on what to do if bitten. The Czech Radio 7, Radio Prague website recently published a map of tick infested areas. Nobody has such a map here. Here we are told nothing and this country has no equivalent of the CFC - so who is investigating the problem?

Samento - a breakthrough in the treatment of chronic illness

Although conventional antibiotics can be effective against Lyme, their use is often accompanied by unpleasant side effects. Some of the best results in its treatment have been achieved using Samento TOA free Cat's Claw, a rare chemotype of the Peruvian herb *Uncaria Tomentosa*. This is not a modified Cats Claw, but a natural variant. Many studies have been made of this herb, which has been in continual use by the indigenous peoples of Peru for over 2,000 years. The fact that there are more than sixty varieties of Cat's Claw used by many tribes throughout Peru has caused a great deal of confusion - but it is extremely important to recognise the differences. Samento is the Ashaninka Indian word for their precious 'healing type.' Of all the peoples who use Cat's Claw as a medicine, the Ashaninka demonstrate the longest history of use. They believe that some plants, such as Samento, are inhabited by 'good' spirits. Many Lyme sufferers may possibly agree. Many clinical studies have now been done with this herb, which Dr Andrew Wright has found effective in over sixty percent of his patients. So why is Samento so effective? Samento may have three 'modulating' and direct actions on individuals suffering from Lyme Borreliosis and related illnesses:

- * The proven Immune System modulator effect
- * The proven broad spectrum anti-microbial effect
- * The modulating 'blocking' effects on the adverse Bio-Neurotoxins molecular actions.

Samento does not contain a group of chemicals called tetracyclic oxindole alkaloids (TOA's) that act upon the central nervous system and can inhibit the positive effect of the key actives, the pentacyclic oxindole alkaloids (POA's). It is these POA's that demonstrate powerful immune system modulating properties that help the patients own immune system to fight back. According to research conducted in Austria, just a 1% level of TOA's can cause a 30% reduction in the effectiveness of the POA's, and many varieties of Cats Claw may contain as much as 80% TOA's.

A recent six-month study consisting of 28 patients who had tested positive for the Lyme spirochete Bb using the Western Blot test was conducted by US cardiologist Dr. William Lee Cowden. All of the individuals were suffering from advanced chronic Lyme. Half the individuals were given the conventional antibiotic therapy and half were given Samento TOA free Cat's Claw. At the end of the six-month study, three in the antibiotic group showed slight improvement, three were worse, and the rest remained the same. All of those in the Cat's Claw group experienced a dramatic improvement, and 12 of the 14 tested Bb negative at the end of the study.

(Presentation at The International Symposium for Natural Treatment of Intracellular Microorganisms, Munich, Germany, March 29, 2003)

Oxindole Alkaloids

Most Cat's Claw products on the market contain a mixture of POA and TOA, in unknown proportions. Yet K.-H. Reinhard has noted "...the root of *Uncaria tomentosa* is a valuable drug only when its pentacyclic chemotype is used without admixture of the tetracyclic chemotype. The pentacyclic oxindole alkaloids act on the cellular immune system. They raise the rate of phagocytosis (germ-killing) by granulocytes (a type of white blood cell)... and they induce the release of a factor from endothelial cells (which line the heart, blood and lymph vessels) that regulates the proliferation of lymphocytes (germ-killing white cells)... The secretion of the factor was effected by the pentacyclic alkaloids but not by the tetracyclic alkaloids.

Rather, it was shown that the tetracyclic alkaloids act antagonistically on the release of the factor."

(Reinhard, K-H. *Uncaria tomentosa* (Willd.) D.C.: *Cat's Claw, Una de Gato, or Saventaro*. *J Alt Comp Med* 1999, 5:143-51)

Falkiewicz and Lukasiak report that the POA-stimulated endothelial factor activates normally inactive B and T lymphocytes in humans, increasing germ-killing power. Keplinger and colleagues found that in humans, the POAs increased lymphocyte counts when they were too low, and lowered them when too high. Thus, the POAs are both immuno-stimulating and beneficially immunoregulating.

(Keplinger, K. et al. *Uncaria tomentosa* (Willd.) D.C. - *Ethnomedical use and new pharmacological, toxicological and botanical results*. *J Ethnopharmacol* 1999, 64:23-34)

Samento: More than POA

The water-alcohol Samento extract also contains many other beneficial components. Multiple quinovic acid glycosides are present as well. "These compounds are what the latest generation of quinolone antibiotics (such as Cipro(r)) are based on. The natural compounds provide safe and significant direct antimicrobial effects on Lyme disease." The quinovic glycosides also have shown antiviral activity against rhinoviruses (cold viruses) and vesicular stomatitis virus (oral cold sores).

Samento also contains the triterpenes oleanolic and ursolic acid. These have been shown to have liver-protective, anti-inflammatory, antiviral, antibacterial, anti-ulcer, immunostimulating/modulating and blood sugar-lowering properties. Catechin polyphenols, including epicatechin, with anti-inflammatory and blood sugar-lowering effects, are also present in Samento.

(Rowen, R. *The incredible healing action of one simple herb*. Dr. Robert Jay Rowen's *Second Opinion* 2003)

Samento: Powerful Anti-Inflammatory

Cat's Claw extracts have also been shown to have powerful anti-inflammatory effects. A 1998 study verified these effects through multiple in vitro and in vivo experiments. The Cat's Claw extract reduced the

production of toxic peroxynitrite, stimulated by a bacterial toxin, and reduced subsequent cell death. The study's authors concluded: "Cat's Claw protects cells against oxidative stress and negated the activation of NF-kB [a powerful pro-inflammatory chemical whose production is stimulated by toxins]."

(Sandoval-Chacon, M. et al. *Antiinflammatory actions of cat's claw: the role of NF-kB*. *Aliment Pharmacol Ther* 1998, 12:1279-89)

These studies provide a mechanistic evidence for the widely held belief that Cat's Claw is an effective anti-inflammatory agent." Bb is known to shed membranous materials from its surface that stimulate powerful inflammatory, autoimmune reactions. In a subsequent study, the same research group found that Cat's Claw extract reduced TNF-alpha expression stimulated by a bacterial toxin 65 to 85 percent, at only nanogram levels of cat's claw. A nanogram is one-thousandth of a microgram! TNF-alpha is one of the most powerful pro-inflammatory cytokines released (often to excess) by white blood cells when challenged by germ toxins.

(Sandoval, M. et al. *Cat's Claw inhibits TNFalpha production and scavenges free radicals: role in cytoprotection*. *Free Rad Biol Med* 2000, 29:71-78)

In a person who is overloaded with microbes, as is often the case with Lyme Disease, taking a large dose of Samento or other anti microbials can cause a die off reaction or 'healing crisis.' This reaction was observed historically in patients with Syphilis, Lyme's famous cousin, with which it shares many characteristics. These symptoms occur because of a release of toxins released by the dying microbes - and can be managed by simply dropping the dose to reduce the rate of die off, and by drinking plenty of water and using certain other supportive herbs. Put simply, this is a sign of the herb working. Samento is completely free from other side effects - and has been adopted as a medicine in some countries - such as Ecuador. It can be combined with other therapies, and is often used by doctors alongside other treatments for chronic illness.

For many Samento is proving to be something of a miracle. This may not

be everyone's experience with it, but like most herbal remedies, it offers one distinct advantage over many drug therapies. In the words of sufferer Kezzi Turner (who now runs the excellent Samento Frequently Asked Questions (FAQ) website - which he set up to offer support and advice), when asked 'what happens if it doesn't work?' he replied 'nothing happens, but it's worth the try!'

Many Lyme experts believe that it is on the increase, like many other 'superbugs,' and that it is spreading quickly. Many believe it is our excessive use of antibiotics and the 'toxic load' our bodies face that partly explain this. Future generations may question the wisdom of an 'arms race' with nature that has led diseases such as Lyme, TB and malaria to evolve into new threats. South American people know about this - as ninety five percent of the indigenous people of South America were wiped out after the arrival of the Conquistadors. Most of them were not killed by bullets or steel. Most of them were killed by the mysterious illnesses the Europeans brought with them.

"I have been sick since September 1996 having been bitten playing golf. I was a very fit and active 46 year old, playing off 15 handicap, within 2 weeks I could not play golf."

Gail Lowe, *British Lyme sufferer*

To order Samento or for further information on Lyme Disease, please contact Rio Health at www.riohealth.co.uk or call 01273 570987

