

Pilot study: „the effects of the i-HEALTH interactive zap-per-treatment on patients with chronic Borrelia spirochetes infection

Borreliosis- many sources, many faces

Until recently only 3 to 4 different, widely spread pathological Spirochetes from the Borrelia-family were known:

- Borrelia burgdorferi sensu stricto/sensu lato (USA)
- Borrelia afzelii (Europe, Asia)
- Borrelia garinii (Europe, Asia)

20-30 % of all ticks in regions below 800 m sea level are infested with Borrelia, according to new studies and these are transmissionvectors for the Bacteria that live in these ticks. In Portugal 70% of all ticks are infested with Borrelia.

Other insects are capable of transmitting Borrelia indirectly (no vectors) Other insects are capable of transmission of Borrelia indirectly to people (not as vectors), for example from infected cows, mice, small mammals, horses by wasps, mosquitos, lice, flea's. 70% of the mice in regions where Borrelia is epidemic are infected.

Pathological effects after acute or chronic infections are only known from the three Borrelia-species(see under #1), while B. burgdorferi may cause the Lyme-Borreliosis. The other two species are causing similar adverse effects.

More Borrelia-Species than expected

According to the newest molecular biological sequence analysis more than 400 different Borrelia-Spirochetes have been identified.

Their pathology is very similar, but has hardly been studied.

Travelling in foreign countries often leads to mixed infections with several Borrelia species.

Such mixed infections cannot be diagnosed with the ELISA-test while the matching antibodies in blood samples or liquor are lacking. Only DNS-PCR-sequencing brings this to the surface.

With these mixed infections several species are competing for the primary position in the host and thereby cause complex symptoms, that usually are not traced to the Borrelia. Both reliable diagnostics as well as reliable therapeutic strategies are completely lacking for the known species as well as the hardly or unknown species.

Lyme Borreliosis: probable Symptoms

- Regional Lymph-adenopathies
- Erythema Migrans (EM) at various skin regions
- Often stiff necks and migraine
- 50 % of the patients with EM have Spirochetes in their blood (can be proven by growing a culture from a blood sample)
- Fever, tiredness, weakened immune-system
- Mono- and Oligoarthritis
- Myocarditis
- Antibiosis with most Antibiotics increasingly leads to Neuroborreliosis, especially when antibiotics are used that are not working at the central nervous system.
- In 60-80 % of the acute patients therapy-resistance increases.

Neuroborreliosis: Symptoms

- Facial palsy
- Aseptic Meningitis
- Cranial Neuritis
- Peripherous Neuropathy
- Radiculopathy
- Enzephalitis
- Electric air pollution-Sensibility/-Allergies (HF+LF)
- Psychosis
- Psycho-neuro-immunologic illnesses
- General Immune depressions

Frequently serum-titer negative, cyclic Bacteriämie, Liquortiter positive, few bacteria in the central nervous system, frequent mixed infections with several Borrelia-species

New possibilities for diagnosis

- The indirect proof of the presence of Borrelia by means of anti-body-titer is not very reliable, because the titers often disappear although the bacteria are still present in the blood, or at least survive in the liquor. To check the efficacy of therapies these tests are not really suited.
- The direct proof by means of a culture from blood or liquor is also difficult, because the organisms have to adapt to the medium, and usually they have been heavily damaged by immune attack, therefore grow badly.
- Live-Microscopics and Fluorescent-Microscopics after DNA-dying are reliable but very time-consuming.
- The direct-proof through the DNS of the bacteria, is highly sensitive, specific and reproducible, becomes state of the art (Borrelia-specific PCR).
- An indirect proof through the cellular immune reaction against Borrelia (LTT: Lymphotoxicitytest) usually is non-specific, because also other species are included.
- Hope is raised by a new method, the ELI-Spot, with genetically produced, highly specific antigens, with which the cellular immune-reaction can be proven even species-specific and with very high accuracy (for instance.. Ganzimmun AG, Mannheim)

New possibilities for diagnosis and therapy by means of species and host-specific micro-current-frequencies with the i-HEALTH® thermography and zapscan-module

- Bacteria generate lower frequencies than human-beings. These frequencies are produced by the genes of the bacteria during the replication of the DNS and the genetic expression, in the form of light and em-waves. (after G. Lakhowsky, R. Rife, H. Clark, u.v.A)
- Bacteria also interfere in such a way that disrupting frequencies and healing frequencies are generated in the human body, changing the normal frequency-spectrum of the organism. The frequency-spectrum is shaped and communicated by means of cell-/tissue specific genetic expression. (Meridian-Frequencies, partly coherent light). Especially in the brain frequency-changes may be caused by genexpression-patterns that are influenced by Borrelia-toxins.

- These frequency-patterns change the metabolic processes and cellular activity. This influences the skin-resistance at acupuncture-points that are linked with the affected cell-complexes.
- When micro-current of the right frequencies are fed into the body, the disrupting frequencies become less prevalent and the multiplication-rate of the bacteria is diminished or stopped altogether. The vegetative nervous system immediately notices with which frequencies the stress-levels are alleviated.

Advantages of the i-HEALTH® ZapScan-Modules compared with other devices with species-specific frequencies according to Rife, Clark, a.o.

- The specific frequencies of viruses, bacteria and parasites and/or diseased cells are not established by means of clinical diagnosis or bioresonance, but these effective frequencies are found by means of a thermographic
- Therefore the kind of infection is not really relevant, because the frequency-scan automatically finds the right frequencies.
- The effects of zapping are being evaluated in several studies. It is already clear that the results are often amazing and encouraging. However, zapping with a fixed frequency or with a range of frequencies is like shooting with pellets, whereas the i-HEALTH method in comparison is shooting like a marksman.
- This study aims at showing the efficacy of the i-HEALTH® zapscan when applied to the Borreliosis, Lyme-disease and Neuroborreliosis for which there is no effective therapeutic-concept. The molecular parameters that we have chosen show the effectiveness without a doubt.

Our pilot-study

8 MD's cooperated in the test of the i-HEALTH zapscan module and treated 27 patients that were suspected of having developed Lyme's disease and immune deficiency. During 6 to 8 weeks the patients were treated once or twice a week with their individual zapper-frequencies. In addition to that the i-HEALTH raymedies were given to support the detoxification.

Because the patients had to travel to the MD's practice, the total number of treatments in this pilot was approx. 1x to 2x /week which is only 30% of the ideal protocol. This ideal protocol will be offered by i-HEALTH with a home treatment device that can be rented from the therapists.

Blood samples were taken before and after the treatments. To prevent coagulation EDTA and Citrate were added.

The aim of the study: When Borrelia were proven to be present before treatment, what kind of reduction can be achieved?

It is not possible to gain more insight with this study in the mechanism through which this method works. Does it strengthen the immune-system or does it influence the reproductive rates of the bacteria? This is a question for another study.

It is certain that chronic Borreliosis cannot be treated. Therefore chances for improvement in the patients condition are very small.

The clinical diagnosis and the subjective condition of the patient are taken into account.

Molecular- and cellbiologic Screening of the blood samples

**Centrifugation to raise concentrations (x40)
of Leukocytes and Bacteria as well as
Parasites**

Molecularbiology:

1. Vital Kryoconservation
(Reproducibility possible for a long
time to come)
2. DNS-Isolation
3. DNS-PCR with Borrelia-Primers
4. Selection PCR-positive samples
taken before treatment
5. Comparative quantitative PCR to
check before and after treatment
results and differences

Cellbiology:

1. Live blood analysis and dark-field
microscopy
2. Search for Spirochetes/Borrelia
and other Parasites / germs
3. Photodocumentation
4. Comparative Video-Microscopy
before-after screening

Digital live blood analysis with the aid of High-Tech Zeiss Microscope

A. Koroknay, 9/2005



The most advanced research mi- croscope Type Zeiss Axioskop 2 Plus,

Mounted with fluorescence-lighting,
dark field and phase-contrast, and
with the new A-Plan-Neofluar Phaco3
x100 oil-immersion objective and a
highly sensitive digital-video camera
(4.1 Mpixel).

In order to prove the presence of the
Borrelia with live-blood microscopy
(Vital-Microscopy), fluorescence-
microscopics and dark field.

With these magnifications the Dark
field (up to 4000-x) was not suited
for documentation. To find living
spirochetes at 400x magnification it
was suitable

Livecell-Microscopic picture from Blood sample joined by DNS-Fluorescence-Microscopy of cultures



Living, rapidly moving Borrelia in the blood of a patient, x4000 Phaco3,



Borrelia, grown in a special medium during 3 weeks from the blood of a participating patient.

The Borrelia in the blood of a patient who is participating in the study, is not in good condition, which makes sense because it is continuously under attack from antibodies and complementary factors, or may be this is caused by the zapping. Therefore the bacteria disappear quickly into immune cells, tissue, joints and especially the central nervous system. The specimen one still finds in the blood, are usually weakened or seriously damaged, not as nice as in the Borrelia-culture at the right hand side.

DNS-Fluorescence-Microscopy with DNS-DAPI-Dye (Höchst-Dye)

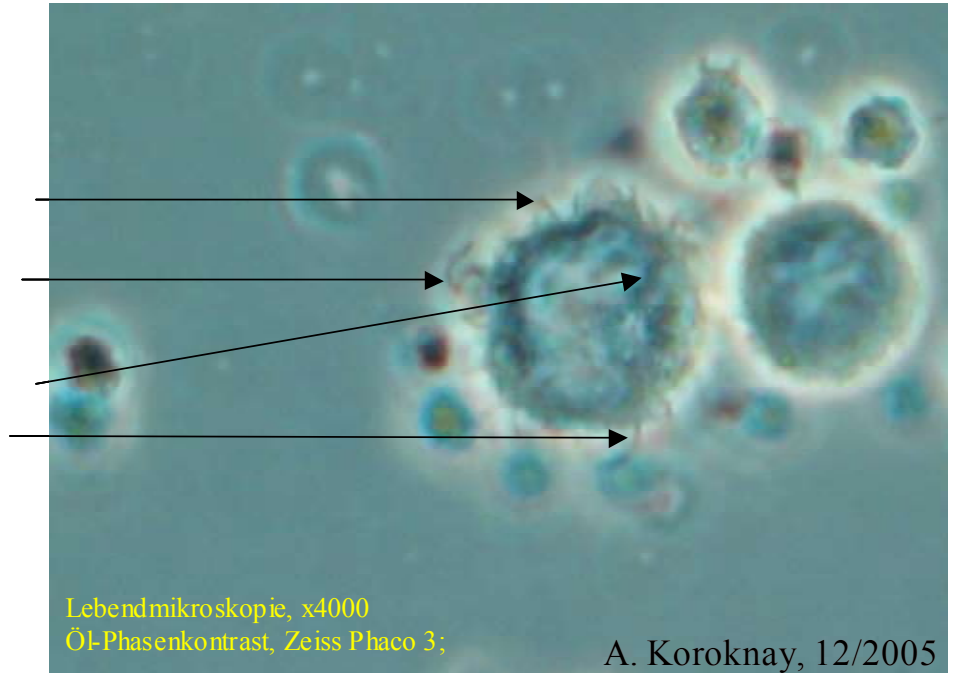


Direct-dye of fixated, killed Borrelia in enriched blood(40x by means of centrifugation)
4000x Plan-Neofluar
Epifluorescence

Also intracellular Spirochetes become visible, for example upper-left. The cell-nucleus is also intensely blue because it also contains blue coloured fluorescent DNS, just like the Borrelia.

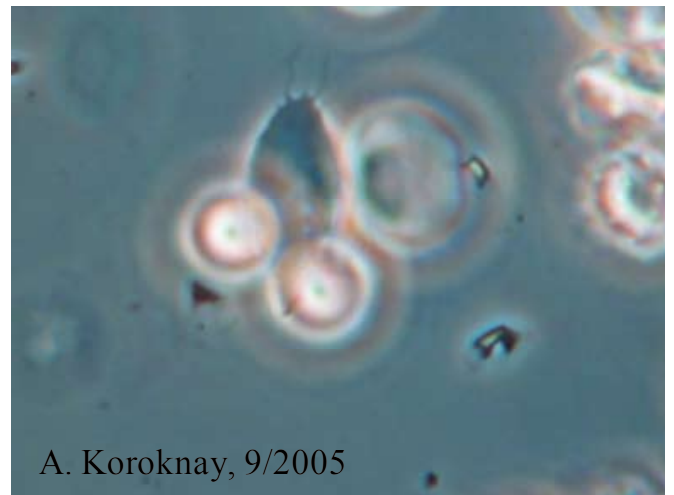
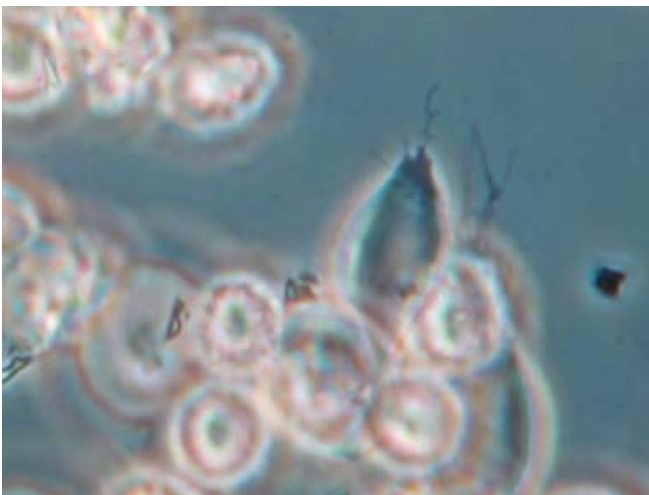
Borrelia live also inside the Leucocytes

Monocyte full with intracellular living and moving Borrelia-Spirochetes (arrow);



Monocyte full with intracellular living and moving Borrelia-Spirochetes (arrow);

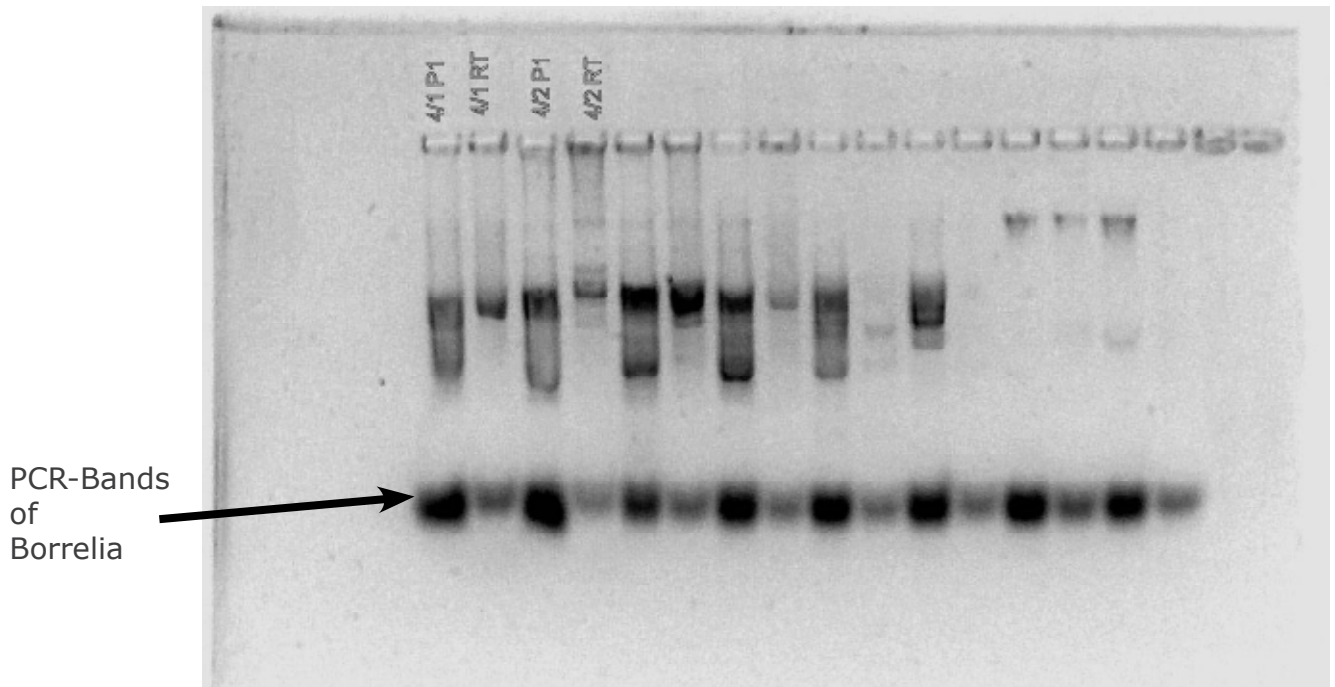
Living Trichomonades in a Patients before the ZapScan-Study commenced



Trichomonades, that live in the blood are, according to Tanya Lebedewa an essential cofactor for the development of certain forms of cancer.

In the blood of this patient these Trichs. Had disappeared after the study!

Reduced DNS-PCR-concentration of Borrelia-positive Blood samples after Therapie-concepts with i-HEALTH (Zap Scan, Raymedies)



8 samples, that were strongly Borrelia-PCR-positive, were analysed by means of a quantitative PCR, in order to prove before-after-differences in the concentration of Borrelia-DNS: 1v-8v was before treatment (v=vor=before) the treatment, 1n-8n was after (n=nach=after) the treatments. In each case 30 PCR-cycli direct from the genomic wholeblood-DNS, subsequent Agarose-Gelelectrophores and Digital photo-documentation. **In all 8 strongly positive samples the Borrelia were very significantly reduced after the treatments (30% of the prescribed number).**

Preliminary statistics of this Pilot study

- Of 27 patient-samples 24 were screened and compared for Borrelia-Spirochetes with Vital-Microscopy, in each case screened for 1 hour under 3 object-glasses (16x16 mm)
- Borrelia were found in 58% of the samples before and in 28% after the treatments.
- DNS- PCR-Analysis showed that the number of positive samples was hardly reduced, but the amount of Borrelia-DNS was in 8 out of 13 samples significantly reduced (see picture)

<i>Total # of screened bloodsamples</i>	<i>Before</i>	<i>After</i>
	<i>N=24 (100%)</i>	<i>N=21 (100 %)</i>
<i>Vitalmicroscopy positiv Spirochetes</i>	<i>14 (58 %)</i>	<i>6 (28 %)</i>
<i>DNS-Proof Positive</i>	<i>17 (71 %)</i>	<i>13 (62 %)</i>
<i>DNS-concentration Very significantly reduced in PCR-positive samples</i>		<i><u>8 (77 %)</u> <u>(8 out of 13)</u></i>

Results of the Vital-Microscopy before-after

- In 62 % of the samples the blood cells, red as well as white, were in better condition (more round shapes, more flexible, less money rolls).
- In 38 % of the samples the non-cellular 'debris', consisting of crystals, deposits, parts of cells or not identified particles, were significantly reduced after the treatments.
- Especially the neutrophil Granulocytes, the first front of the cellular Immune reaction, were less lysic (lytisch), less loaded with bacteria and other phagocytosed particles. Lytic Granulocytes enhance strong autoimmune responses because of their free radicals and enzyme-cocktails.
- Except 6 out of 21 comparatively screened samples, they were in a much better shape after the study.
- Result: Because the results of this study are very positive, it should be followed up by a larger study. I-HEALTH® will pursue this study.

Summary

1. The concentration of Borrelia-DNS (=concentration of germs in blood) was measured directly and exactly. This concentration was significantly reduced with a significant number of patients after the i-HEALTH-therapy had been followed (77% of the blood-positive samples) and also in conformity with the microscopic analysis
2. Borrelia could not be found in all blood samples (62 %), although the screening was carried out with a new method that is highly sensitive and specific (new type of PCR)
3. According to the microscopic analysis, after the treatments the condition of the blood was better in 15 out of 21 samples. In one case the Trichomonades had disappeared.
4. If the number of Borrelia in the blood, and the condition and behavior of the blood has anything to do with the condition of the patient, then this therapy is very positive.
5. Analysis and size of the study should be upgraded, the therapy schedule tuned to a precise evaluation of the i-HEALTH treatment, including the data of the physician and the patient. Due to the circumstances of this pilot and the available time the exact therapy-effect relation has not been established..

i-HEALTH® would like to thank everyone involved!

Especially:

- The physicians and therapists for their efforts to treat the patients and to send the samples to the lab.
- The patients for their cooperation, patience and trust in something entirely new.
- Mr. Rainer Schoene, Medica Bautzen for the coordination, collection of the samples and his unstoppable enthusiasm
- Mr. Armin Koroknay, for the painstaking and competent ways in which the samples were analyzed and for the development of the research-methods.