A New Approach to Chronic Lyme Disease

By Jill Neimark

In May of this year I sat down at the beautiful Essex House on Central Park South, with a German physician specializing in internal medicine, Fritz Schardt. Dr. Schardt, who is associated with the University of Wurzburg in Germany, published an interesting pilot study in the European Journal of Medical Research in July of 2004 on the use of an antifungal drug, fluconazole, in treating chronic, advanced lyme disease. This pilot study examined 11 patients with chronic lyme. Dr. Schardt has slowly refined the protocol since then, and believes it holds great promise in treating this difficult condition—which is often misdiagnosed as chronic fatigue or fibromyalgia.

Here follows our interview:

Jill Neimark (JN): What made you think of using diflucan, an antifungal, to treat lyme disease?

Dr. Fritz Schardt (FS): I was actually my first patient. I got lyme disease in 1989, and was given two weeks of doxycycline. Our country follows the protocols set by yours, so that's what is generally recommended. I now know that was very inadequate and I do not think doxycycline should be used in early lyme disease at all. It is only bacteriostatic, meaning it inhibits the bacteria but does not kill them.

JN: I know, the same thing happened to me. At the doses they recommend, it also does not penetrate the central nervous system. I had a fever, stiff neck and bullseye rash. The stiff neck means it was already in my nervous system. Therefore I probably needed six to eight weeks of doxycycline at double the dose I was given. Higher doses will penetrate the CNS.

FS: Right. I recommend penicillin in early lyme disease.

JN: Amoxicillin is given here. Is that what you recommend?

FS: No, that's broad spectrum, so you end up killing many bacteria, including necessary ones in your gut. I recommend smaller spectrum penicillins. The syphilis spirochete has not become resistant to penicillin, and there's good evidence that borrelia, the lyme spirochete, has not either. In Germany, we have cefalosporine, roxithromycin, cotrim-TMPO, and clarithromycin. These are all good choices. They should still be taken for 20-30 days.

JN: Okay, well, you took doxycycline so you ended up with chronic lyme disease. What happened then?

FS: I was sick for 18 months. I was given intravenous rocephin several times. I would feel better, but then once I stopped taking the antibiotics, I relapsed. I was often bedridden and I thought I was ready for the wheelchair. Then, I developed a fungal infection, possibly because of all the antibiotics. So I was put on diflucan. This was around 1990. It was a new drug that was being used mainly for opportunistic fungal infections in AIDS patients.

JN: And what happened?

FS: I got better. But I only stayed on it for two weeks at first, and then I got worse again. So I went back on it for 30 days, and I got well.

JN: What was the dose?

FS: I took 100 milligrams twice a day.

JN: Are you completely well?

FS: I am very active and energetic and I feel quite well. I have since competed in athletic events and won them. However, I do have an occasional heart arrhythmia that I believe may be due to permanent damage from the spirochete.

JN: Tell me your reasoning as to why diflucan might work in chronic lyme.

FS: There are several reasons. First of all, it inhibits an enzyme called cytochrome P450. This is an enzyme that your liver, for instance, uses to detoxify chemicals and drugs. Borrelia has a very primitive p450 defense, so if you inhibit it, it is easily weakened. Therefore I believe that diflucan inhibits the growth and replication of borrelia. It does not necessarily kill it. In addition, it penetrates well into the cells and into the nervous system and brain, where borrelia may hide.

JN: What is your current protocol?

FS: I recommend 200 milligrams a day, for 50 days. There are now 200 milligram pills available, so once a day is fine. Then I recommend 20-30 days of any of the penicillins I mentioned. You may have to go through several cycles of this protocol. You must also be very aware of other drugs that act on the p450 enzyme system, specifically a subset that inhibits CYP3A4. You should not be taking any of these drugs at the same time as you take diflucan.

JN: What are some of these drugs?

FS: There are many, and it's best to check with your doctor. Some common ones are erythromycin, amitryptylin, midazolam, Lovastatin, and others.

JN: I hate antibiotics. Do you have to take the penicillin?

FS: I understand, many lyme patients come to hate antibiotics because they have to take so many of them for so many years and are still ill. In fact, I also was made ill by the antibiotics.

JN: They really disrupt your digestion.

FS: Right, that was my problem.

JN: So, this protocol is your best one-two punch against borrelia, but you don't have to take the antibiotics if you truly hate them.

FS: Right. In addition, diflucan has a slow half-life so it can slowly build up in your bloodstream. Sometimes patients call me after a few weeks and say they are feeling very ill on the protocol. Perhaps it's a herxheimer, or perhaps it's that the levels of diflucan are higher than they can tolerate. So I say, take a 3 or 4 day pause, and then go back on the protocol. This is perfectly acceptable.

JN: What happens if you have a weak p450 system? Have any of your patients have raised liver enzymes from the diflucan?

FS: I have been lucky, not one of my patients have had raised enzymes. It is generally well tolerated. If it is a problem, however, you can lower the dose of diflucan. This would be overseen by your doctor. I recommend 100 milligrams in pediatric cases.

JN: How many patients have you treated now?

FS: At least eighty.

JN: What is the most difficult case you've had?

FS: I have one 75-year-old patient who has had lyme for 18 years. He was very ill. He has had to do this cycle of diflucan and penicillin 3 times. He is much, much better. In fact, he's so happy with his improvement he called the drug manufacturer to tell them

they need to run a publicity campaign to promote diflucan for chronic lyme disease.

JN: Some patients on some internet groups are adapting your protocol, probably in concert with their doctors, and I'd like to know what you think of this. They are suggesting staying on diflucan for 9 months, and some of them are adding in low-dose minocycline. Are you aware of this?

FS: No, I am not aware of this.

JN: What do you think of the idea?

FS: I believe in the narrow-spectrum penicillins for borrelia, not the cyclines.

JN: What about 9 months?

FS: That remains to be seen. Perhaps, like tuberculosis, some patients will need to be on diflucan at least six months or more. Borrelia is a very sophisticated organism, and one of the few bacterium with two cell membranes. There is much we still have to learn about it.