

# THE AFIB REPORT

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## **My Afib Journey**

**By Hans R. Larsen**

On December 18, 1989 at around 7 pm my life changed forever. It was probably a good thing that I did not, at the time, realize just how devastating this change would be.

I am a chemical engineer by profession and at the time was consulting on a very major project involving 12-hour days and a great deal of time spent in front of a computer. At 57 years of age I was in excellent health, but was under a lot of stress at this time. I had contracted a bad flu and as I sat down on my bed in preparation for an early night I coughed violently and immediately felt like my heart had exploded. It was beating wildly, totally out of control and I expected it to depart permanently via my throat at any minute. To say I was scared would be an understatement! On my doctor's advice I went to the ER at our nearby hospital and was immediately hooked up to a lot of tubes and beeping gadgets. After what seemed like an eternity, but was actually 2 to 3 hours, my heart rhythm returned to normal. I remained in hospital for 3 days during which time I went through numerous tests to check out the status of my heart.

On February 27, 1990 I received the verdict from my cardiologist. I had paroxysmal atrial fibrillation and occasional premature ventricular beats (PVCs) with a slightly enlarged left atrium (44 mm), but no underlying heart abnormalities. Left ventricular ejection fraction was 59%. My cardiologist emphasized that my condition was not in any way life-threatening and expressed no concern when I told him that I planned on going cross-country skiing the following week. I felt sure that this was a one-of-a-kind episode and continued my life much as before with excess stress, long hours at work, and lots of computer time.

On March 15, 1990 at around 2 pm I experienced my second warning, this time probably triggered by food poisoning. It was back to the hospital again where I converted after 4 hours. I now realized that I had better take these warnings seriously. Computer work, I had noticed, made me extremely stressed and markedly increased the frequency of my PVCs. So, at the age of 58, I decided to retire, at least temporarily, to see if I could get this thing under control. No longer being in the rat race certainly improved things and all went well until June 1991 when I experienced another afib episode at 6000 feet while hiking up a mountain in the wilderness. Fortunately, I was airlifted out by helicopter. By this time, I had begun to realize that certain things might trigger an episode. These included physical and emotional stress, forcing myself to do things I really did not want to do, drinking coffee or alcohol, and working on the computer.

Gradually, but inexorably, my life became more and more restricted and the list of things I could no longer do grew day by day. By 1996 my episode duration was up to 12 hours and that year I experienced 3 episodes, 2 during the day and 1 at night. The year 1997 saw 9 episodes averaging 10 hours each and 1998 culminated with 23 episodes averaging 11 hours each. By

now, I had realized that I did not convert any faster in the hospital than at home so my visits to the ER ceased.

Fortunately, the intensity of my episodes had decreased very significantly over the years. I no longer felt like my heart was going to jump through my throat. For whatever consolation it may be to new afibbers, intensity lessens with time. I had also developed a routine in dealing with episodes. At the onset and end of the episode I would take an aspirin (325 mg) to help prevent blood clotting and, if my heart beat was quite rapid, I would take a regular (not time-release) verapamil tablet (80 mg) at dinner in order to ensure a good night's sleep. Other than this I would just try to continue my daily routine or rest if it seemed to make things easier. I usually cut back on my daily walks, as they would tire me.

I had refused to take antiarrhythmics for my condition even though I had been prescribed both digoxin and sotalol. I guess an "inner voice" must have told me that they probably would not do me any good. I did try the Hoffer niacin program for a year, but did not find it helpful. As I am sure many afibbers will attest to, having frequent afib episodes can make you very depressed. In October 1998 I began taking 20 mg of paroxetine (Paxil) every day. Prior to starting on paroxetine I experienced an episode every 7 to 14 days and each one lasted between 12 and 17 hours. I had an episode 10 days after starting the paroxetine, but then went 55 days without one. The interval before the next one was 37 days, but this attack lasted 20 hours. Then it was 76 days without an attack, but when it occurred it lasted 108 hours. The next one came 40 days later and lasted 58 hours. However, it took the form of severe *bradycardia* with heart rates as low as 39 beats/minute. I later came across an article that reported 2 cases of severe bradycardia in connection with paroxetine treatment[1]. So to make a long story short, I found paroxetine very helpful in the beginning, but had to discontinue it after the bradycardia experience, which I found very scary.

Why did paroxetine work – at least for a while? I now realize that my episodes were mostly of the adrenergic kind and therefore involved an excessive release of norepinephrine (noradrenaline) in the autonomic nervous system. Work done by Dr. Jack Gorman, MD at Columbia University concluded that paroxetine might normalize heart rate variability and, in turn, help prevent panic attacks[2]. Panic attacks, in many respects, are similar to afib episodes. In any case, the paroxetine obviously did not work for me and neither did St. John's wort, which I tried over a 6-month period later in 1998.

After my bradycardia episode I began to take my condition very, very seriously and did a lot of studying to try to find a solution. My episodes now sometimes lasted 4 days and made me tired for weeks after. In July 1999 I had all my amalgam (silver) dental fillings replaced with composite fillings and underwent a perhaps less than optimum detoxification program. I later realized that I had an amalgam core under a crown and had this replaced as well. I can't honestly say that the amalgam removal made a noticeable difference in my case. Perhaps I was not as "poisoned" as I thought I was. My hair analysis did not show an excessive level of mercury although my urinary excretion after provocation with DMPS was high and probably still would be if retested.

By now I had come to believe that much of my problem had a psychological origin so I embarked on a series of alternative treatments in an attempt to calm my nervous system. I tried qi gong, acupuncture, Chinese herbal medicine, regression therapy, biofeedback, Reiki, Shiatsu, Emotional Freedom Technique (EFT), homeopathy, naturopathy, magnesium infusions, and probably a few more modalities that I don't recall. All of them were quite pleasant except for perhaps the acupuncture and the foul-tasting Chinese remedies, but unfortunately, none of them had any effect whatsoever on the frequency or duration of my episodes.

I also tried the prescription drug atenolol (Tenormin), but 50 mg or even 25 mg of this beta-blocker dropped my blood pressure so precipitously and made me so tired and dragged out that I could not function. So I gave this up pretty quick. I did discover, however, that if I chewed a quarter of a tablet (12.5 mg) of atenolol and then swallowed it with water whenever I felt

particularly stressed or actually felt an episode coming on I could, in many cases, abort it. It seemed to work even better if accompanied by a glass of fresh celery juice.

While trying all these alternative and conventional therapies I also did a great deal of research in nearby medical libraries (Google was not even on the horizon then). My initial research turned up just one paragraph about lone atrial fibrillation (LAF) in Hurst's "The Heart", the main medical text book for cardiologists. Further on-line research in MEDLINE turned up an article entitled "Paroxysmal atrial fibrillation: A disorder of autonomic tone?" This article was written by Professor Philippe Coumel at the Lariboisiere Hospital in Paris who in 1982 discovered that a dysfunction of the autonomic nervous system is the underlying cause of LAF (3). In other words, LAF is a disorder of the heart's electrical system and is not associated with heart disease. What a relief! At about the same time I also came across an article by Dr. Stephen Kopecky of the Mayo Clinic who had found that lone afibbers under the age of 60 years had an exceptionally low risk of ischemic stroke and that this risk varied little whether the atrial fibrillation was paroxysmal or permanent.(4) Another sigh of relief!

By the end of 1996 I felt I knew enough about my condition to share my initial findings and did so in the article "Lone Atrial Fibrillation" published in the November 1996 issue of International Health News (5). I continued my research and in 2001 began publishing The AFIB Report and also established the afibbers.org Bulletin Board, which now contains more than 150,000 postings by afibbers from all around the world. The year 2003 saw the publication of my 200-page book "Lone Atrial Fibrillation: Towards a Cure" with foreword by Professor Coumel, whose work I much admire.

Despite all my research my own condition was not improving. During the year 2000 I experienced 13 episodes averaging 24 hours in duration.

The year 2001 did not begin on a good note. By the end of March I had endured six episodes and spent 248 hours in fibrillation. Things were looking pretty grim. My diary entry for January 17<sup>th</sup> reads, "Life really is a pain!" One thing had become increasingly clear to me though and this was that my episodes were all triggered by emotional, mental or physical stress. It was also clear that most of them began between 3 pm and 5 pm.

During the first half of the year I continued my search for a supplement combination that would work, but did not come up with anything of obvious value. Whether things would have been worse if I had not supplemented is impossible to say. I also tried out some new exercise regimens and underwent Chinese "scraping" and magnet therapy for several months. It certainly made me feel better, but had no effect on the frequency or duration of my afib episodes. I did find that ginkgo biloba (60 mg twice a day) made me less depressed and as ginkgo is also an effective anticoagulant I decided to continue taking it and have done so to this day.

For awhile I took 12.5 mg atenolol at around 2 pm every day in order to protect myself during my vulnerable period between 3 pm and 5 pm. Unfortunately, I was not disciplined enough to take the atenolol every day so it did not have any overall beneficial effect.

In July I finally got the break that I had been searching for. I came across an article written by Dr. Andrea Frustaci, a cardiologist at the Catholic University in Rome[6]. Dr. Frustaci had performed biopsies on 12 patients with LAF and found that 8 of them had signs of a current or past inflammation of the heart lining. The inflammation was active in 3 of the 8 patients; they were treated with prednisone and had no episodes during the following 2 years. I corresponded with Dr. Frustaci and learned that it is quite possible that all the 12 LAF patients actually had signs of inflammation, but that the biopsy missed them in 4 of the cases[7]. Six months later independent teams of American and Greek researchers reported that LAF patients had significantly higher levels of the inflammation marker CRP (C-reactive protein) than did people without LAF[8,9].

After a careful study of Dr. Frustaci's work I decided to assume that I probably had an inflammation of the heart lining and set out to devise a scheme to eradicate it. In retrospect, I probably should have had a CRP test done before I began, but at the time it was not readily available and my physician was not familiar with it.

My approach to eliminating LAF was two-pronged – using dietary modifications and lifestyle changes to avoid “feeding” and constantly aggravating the inflammation and using natural supplements to dampen and heal the inflammation.

I am a type O blood type so I decided to follow Dr. Peter D'Adamo's diet for type O. The main features are total avoidance of all wheat and gluten-containing products, dairy products (except butter), kidney beans, lentils, peanuts, potatoes, eggplant, peppers, and a few other foods. Grains and cereals should be consumed in moderation (cornflakes, corn, oat bran, and shredded wheat should be avoided). The diet emphasizes protein in the form of lean meat, fish, and poultry and avoids pork, bacon, and ham. Other research has shown that a high intake of omega-6 fatty acids promotes inflammation. So I severely cut back on these types of fats (found in margarines and cooking oils) and increased my intake of omega-3 fatty acids (found in fatty fish and flax oil).

I began modifying my lifestyle quite a few years ago and continued with these changes. I avoid alcohol and caffeine and try to control both my emotional and physical stress levels. I took an impressive array of supplements daily for the purpose of dampening and eventually eliminating inflammation.

#### **Anti-inflammatory Protocol**

Moducare	2 capsules 3 times daily
Vitamin C	1000 mg twice a day
Quercetin	500 mg 3 times daily
Alpha-lipoic acid	100 mg twice a day
Pancreatic enzymes (Cotazym)	1 capsule 3 times daily
Fish oil	1 gram daily
Bromelain	300 mg twice a day
Curcumin	600 mg twice a day
Vitamin E	400 IU/day
Selenium	200 mcg/day
Probiotics	2 capsules daily

I began my anti-inflammation protocol on August 4, 2001. I found it somewhat hard to completely eliminate all wheat and dairy products (except for butter), but eventually managed to do so once my wife found a great recipe for cookies made with quinoa flour! I now believe this was a very important first step. I also moderated my exercise program and increased my protein intake as per the blood type O diet. I had no problems taking the Moducare capsules on an empty stomach, but found the curcumin/bromelain combination to be quite irritating to the stomach so I switched to taking them with meals. I had originally included the herb Boswellia in my program, but found it gave me a headache so I discontinued it after 2 days.

Throughout the protocol I measured my pulse rate, number of ectopic beats over a 5-minute period, heart rate variability, and autonomic nervous system balance daily using a fingertip pulse monitor and software program (Freeze Framer) developed by the Heart Math Institute in California. On August 3<sup>rd</sup> I counted 15 ectopic beats (over 5 minutes) and my maximum power spectrum value was 156 milliseconds squared/Hertz – normal is about 8 to 30. So in other words, my heart's performance was rather chaotic.

A month later on September 3<sup>rd</sup> things had changed quite remarkably. I recorded no ectopic beats and the maximum power spectrum value had decreased to 12. I also felt great, but the

balance between the sympathetic (adrenergic) and parasympathetic branches was still a bit unusual.

On September 19<sup>th</sup> I reduced my Moducare intake to one capsule three times a day instead of the two capsules three times a day I had been on since I began the protocol. Coincidence or not, I don't know, but early in the morning on September 21<sup>st</sup> I experienced my first LAF episode in 2 months. All veteran afibbers will know what a huge disappointment that was! I carried on with the protocol continuing to take three Moducare capsules a day, but reducing the curcumin/bromelain intake to just once a day (at lunch).

I then went 5 weeks without an episode. During this time I was regularly clocking zero PACs and PVCs, my maximum power spectrum value was around 28 and my autonomic nervous system balance was normal.

On November 29<sup>th</sup> I decided to discontinue the anti-inflammatory protocol for three reasons:

- I wanted to see what would happen if I went off the protocol.
- I was due to have a series of blood tests on December 3<sup>rd</sup> and wanted to make sure that the results were not affected by the protocol supplements.
- I wanted to do some more research on the supplements to make sure they had no long-term adverse effects.

Well, on December 4<sup>th</sup> I got my answer in the form of a 60-hour episode! This was followed by a 25-hour one on December 10<sup>th</sup>. So I now had the answer to what would happen if I went off the protocol!

In the meantime, I had heard from several afibbers who have found MSM (methyl sulfonyl methane) helpful. MSM has strong anti-inflammatory properties and is a cholinesterase inhibitor meaning that it enhances parasympathetic activity – just the ticket for adrenergic afibbers, but possibly not so great for vagal ones. MSM also crosses the blood/brain barrier and is reputed to bind to mercury and help excrete it. Sounded like a winner, so I decided to add 1000 mg of MSM (taken with breakfast) to the 3 capsules of Moducare (taken ½ hour before main meals).

I had also come across some very interesting information on American ginseng (*Panax quinquefolius*). Apparently American ginseng not only helps keep blood sugar levels under control, it also partially blocks sodium channels. This effect is similar to that of antiarrhythmics such as flecainide (Tambocor) and propafenone (Rythmol). Seemed like a promising candidate for the protocol so I decided to take 500 mg with breakfast. I should point out that only American ginseng has the above effects – Korean, Siberian and Chinese ginseng do not.

My personal anti-inflammatory protocol now consisted of 3 Moducare capsules per day plus 1000 mg of MSM and 500 mg of American ginseng. I want to emphasize that I have the adrenergic form of LAF and MSM may not be good for the vagal kind. I began the new protocol on December 15<sup>th</sup> and within 4 days it had completely eliminated ectopic beats and produced a very satisfactory HRV graph on the Freeze Framer. I had found no evidence that any of the components of the protocol have any long-term detrimental effects.

The Holiday Season also gave me the opportunity to confirm that I do indeed have a serious reaction to wheat-containing foods. I normally avoid them, but with all the special cakes and cookies on offer during the holidays I confess I did “slip”. Invariably I would end up with numerous ectopic beats about 12 hours later. So wheat in all its many forms is definitely not good for me.

Early in 2002 I received the results of my CRP test. The result was normal indicating that I did not suffer from an inflammation. During the first 2 months of the new year I had 5 afib episodes.

The anti-inflammation protocol was obviously not working any longer and since I now knew for certain that I did not have an inflammation I decided to discontinue it altogether.

During the next few months I experimented with an herbal detoxification program, Dr. Andrew Weil's relaxed breathing program, chiropractic and osteopathic manipulation, and healing touch massage. All to no avail! To add insult to injury I was diagnosed with irritable bowel syndrome (IBS) in March. Since this was quite painful and uncomfortable I had to divert my attention from finding a solution to LAF to finding a solution to IBS. Fortunately, this proved to be a lot easier. Avoiding certain foods, taking Metamucil (not the aspartame-containing version) before meals, dealing with the pain by taking enteric-coated peppermint oil capsules and faithfully listening every day to a self-hypnosis tape by Mahoney[10] essentially cured me of the IBS in a little under 4 months. I no longer need the Metamucil or the peppermint oil, but still listen to the tape as it is very relaxing. I wish finding a cure for LAF was this easy!

In July I began investigating the connection between cortisol/DHEA levels and afib episodes. I had my cortisol and DHEA levels measured (in saliva) and while my cortisol level was fairly normal, although low at around 4 pm, my DHEA level was way off the lower end of the scale. Unfortunately, since I live in Canada where DHEA is a banned substance and importation exposes one to the risk of obtaining a criminal record there is not much I can do about this aspect of my research findings. However, for those of you who live in the US the DHEA connection would definitely be worth looking into.

Finally, in August 2003 I became convinced that LAF could be effectively managed by dietary changes, supplementation and lifestyle changes. My "Prescription for LAF" was published in my first book and can be found at <http://www.afibbers.org/prescription.pdf>. Please note that this prescription, although still valid, has been replaced by my "12-step Plan" which can be found at <http://www.afibbers.org/12stepplan.pdf>.

Although I faithfully followed my prescription during the remainder of 2003 until the end of 2004 my condition continued to worsen. In 2003 I experienced 29 highly symptomatic episodes with an average duration of 27 hours (about 11 days between episodes). In 2004 I started using the pill-in-the-pocket approach (300 mg of crushed propafenone taken in lukewarm water as soon as possible after the start of the episode). This generally reduced the duration of the episodes to two to three hours, but the frequency increased substantially so that I now had episodes about every 3 to 4 days. All told I had 88 episodes during 2004.

My situation was complicated by the fact that it was discovered a couple of years ago that I had hyperaldosteronism, which makes it very difficult to maintain a normal potassium level. For more on that part of my journey see <http://www.afibbers.org/conference/session26.pdf>. Eventually, the fatigue and depression accompanying my frequent, highly symptomatic episodes wore me down and during the summer of 2004 I decided to have a pulmonary vein isolation (PVI) procedure here in Victoria, BC with Dr. Richard Leather. It was eventually scheduled for December 22. Just as well, during the first 3 weeks of December I had 10 episodes.

The procedure went well and the next two weeks were pure bliss with no afib at all. Unfortunately, the bliss did not last. On January 6 I experienced a pretty debilitating episode with accompanying enormous disappointment and depression. From then on things got steadily worse. In January I had 7 afib episodes and a 50-hour episode of bradycardia (very slow heart beat) that was later attributed to the propafenone. I found the bradycardia more frightening than the afib, so I reluctantly gave up the pill-in-the-pocket approach. This meant that my episodes now lasted considerably longer. I had 9 episodes lasting a total of 98 hours in February and 12 episodes in March totaling 129 hours. Things were definitely going from bad to worse. A touch-up was scheduled with Dr. Leather, but the earliest I would be able to have it would be the end of June and even that was not guaranteed – waiting times are very long in Canada.

Now a bit of a miracle happened. A good friend of mine was scheduled for an ablation in Bordeaux on July 11<sup>th</sup>. On Friday, April 1 (no fooling :-)) he received an e-mail from Mlle. Deixonne (Professor Haissaguerre's secretary) informing him that there had been a cancellation for April 11 and enquiring if he would be able to come. He had to decline since he had not been on warfarin for the requisite two months prior to the procedure. Fortunately, he immediately thought of me (I had been on warfarin ever since my December 22 PVI) and over the weekend contacted me with the news. Judi and I did not need a great deal of discussion before deciding that this was one opportunity we could not miss – no matter what the cost. So on Sunday I e-mailed Laurence (Mlle. Deixonne) and said that I would like to come for the procedure. Monday morning I received an e-mail with confirmation that I was “on” for April 11 along with detailed information about the whole procedure including cost, preparation, and even a list of recommended hotels close to the hospital – a very impressive start to my relationship with Hopital Cardiologique du Haut-Leveque.

The week starting Monday, April 4<sup>th</sup> turned out to be rather hectic. The hospital requires you to have a TEE (transesophageal echocardiogram) prior to the procedure in order to ensure that there are no clots in the left atrium or left atrial appendage. They could do this procedure in Bordeaux, but if they did find a clot they would not proceed so the trip would have been in vain. Monday morning I called Dr. Leather's office to see if he could arrange for a TEE (normal waiting time for this procedure would probably be about 2 months) and also to obtain copies of my medical records so I could fax them to Bordeaux. Dr. Leather was most cooperative and pulled the necessary strings to let me have the TEE done on Wednesday morning. I faxed my medical records to Laurence later on the Monday. Tuesday was spent arranging flight and hotel reservations. The TEE turned out to be OK so Wednesday afternoon we picked up our tickets for a KLM flight from Vancouver to Amsterdam followed by an Air France flight to Paris.

We left Victoria Friday, April 8<sup>th</sup> and caught the early morning flight from Vancouver on the Saturday. Sunday, April 10<sup>th</sup> we arrived at the Charles de Gaulle airport in Paris and walked to the train station located right in the airport. Here we obtained tickets for the TGV to Bordeaux leaving at 1:44 pm and arriving at Gare St. Jean in Bordeaux at 6 pm. Going by TGV is a bit like low-level flying with speeds of almost 200 miles/hr (300 km/hr). From Bordeaux we took a rather expensive cab ride to the hotel Chantafred in Pessac, a suburb of Bordeaux where the hospital is located. At this point, we were somewhat tired to say the least! Just prior to arriving in Bordeaux I had gone into afib – an episode that was to last 40 hours.

As scheduled, we checked into the hospital at 2 pm on Monday, April 11<sup>th</sup> and handed over the bank draft for 11,731 Euros (\$14,400 US) which covered the cost of the 5-day hospital stay, the procedure done by Pr. Haissaguerre and Dr. Jais (chief EP) and all tests, catheters etc. as well as room and board for Judi. NOTE: Full payment is normally required one month prior to admission. We were shown to a very pleasant, spotlessly clean room with two beds, and a large wardrobe, which also housed a very solid looking safe for storing our valuables. Shortly after settling in two nurses arrived to take blood samples, blood pressure and ECG. Then Pr. Haissaguerre arrived for a chat. He is a very personable physician, extremely intelligent and with a complete grasp of the intricacies of afib. To say that I was impressed would be an understatement. He said that my procedure was scheduled for Tuesday afternoon and that Dr. Jais would be doing the actual ablation. Later another doctor arrived and asked a lot of questions. Then a nurse's aide came in with a special surgical scrub solution that I was supposed to use when having a shower before bed and in the morning. At 6 pm I was taken for an x-ray and at 7 pm we had a nice supper served in the room. Later on a nurse came in and gave me a heparin injection as my INR had proven to be a bit low (I had stopped warfarin 48 hours earlier as instructed). I also received a potassium supplement as the initial blood test had shown that I was low on that as well. Just before bed I was hooked up to a wireless Holter monitor, which transmitted my vital signs to the nurses' station. At 2 am I was woken up for another heparin injection.

Tuesday morning was taken up with more blood samples, ECGs, blood pressure measurements, heparin injections, groin and chest area shaving and in general, procedure preparations. At 9:15 am I finally reverted to sinus rhythm after 40 hours of afib. Around noon Dr. Jais arrived for a chat. Again I was mightily impressed. One of the questions he asked me was whether I had ever had episodes lasting over 24 hours. I said that I certainly had and he then remarked that, in their experience, this probably meant that there were one or more ectopic sources outside the pulmonary vein area – so after having isolated the pulmonary veins he would go looking for other sources on the atrium wall and ablate them as well. As I understand it, the procedure is done while the atrium is fibrillating; thus when the fibrillation stops, it is likely that the ablation is complete. Nevertheless, several attempts are made to induce fibrillation before the catheters are withdrawn.

At 12:30 pm I was given a sedative and had a painkiller patch put on my groin area to reduce the risk of pain when the catheters were inserted. I was then wheeled down to the operating room and prepared for the procedure. After administering a local anesthetic Dr. Jais inserted the catheters and started the procedure – at about 2 pm I believe. I was given more sedative (intravenously) and really did not feel a lot until I woke up about 2 hours later. Occasionally it hurt a bit, but not intolerably so. At 3:30 pm Pr. Haissaguerre told Judi that the procedure was over and all had gone well. I don't remember too much of what went on during the rest of the day, but I know I had more tests and heparin injections. I was also hooked up to the wireless Holter monitor again and would be continually monitored for the next three days.

Wednesday started out with more tests. While I had the ECG Pr. Haissaguerre came in and immediately noticed that I had a lot of PVCs (I was feeling them as well). He took one look at the ECG as it rolled off the machine and said: "You must be very low in potassium". A blood test immediately confirmed that my level was low at 3.2 mmol/L and within ½ hour I was hooked up to an intravenous feed of potassium chloride and within another ½ hour the PVCs were gone – a clear demonstration of the importance of potassium in preventing PVCs. Otherwise the day was pretty routine with more tests and heparin injections as well as a nice lunch and dinner. I pretty well spent the whole day resting while Judi went for a long walk around the hospital grounds.

Thursday morning Dr. Jais came in for a long chat. He explained in detail how the procedure had gone. They had found no signs of stenosis after the first ablation in Victoria, but had discovered that three of the four veins isolated during that procedure had become conductive again. So he had re-isolated them and had then attempted to put me into afib again. I did go into afib so he went hunting for the offending cluster of rogue cells and found it on the atrial wall. After ablating it he was no longer able to induce afib. On the way out from the left atrium he had done a standard flutter ablation in the right atrium. Apparently, from 10 to 20% of afib ablations result in the development of atrial flutter, so in order to prevent that, they routinely do the flutter ablation on their patients from overseas. His overall conclusion was that everything had gone well and he would not expect me to have anymore afib episodes. However, just to make sure he would send me for a bicycle stress test to make certain that did not put me into afib. I passed this test with flying colors. I was certainly apprehensive before I went into it, since the last time I had a stress test, I went straight into afib after finishing. Later on I had a standard echocardiogram, which proved normal.

Friday morning I had more blood tests and an ECG and we were shown how to self-inject heparin. This had to be done every 8 hours over the weekend. I also had to continue with an oral potassium supplement and spironolactone in order to keep my potassium level up. After lunch we packed our things and went back to the Chantafred where we were to spend the next two nights since the special ward we were on closes for the weekend. In retrospect, we would have been better off staying in Bordeaux because there is not much to do in Pessac, especially on a Sunday. We did take the train from Pessac to Bordeaux on the Saturday and explored the city a little. It is a wonderful city with lots to see and do. While there we arranged to stay at a delightful small hotel (the Hotel Acanthe) in the old part of town from Monday until our return to Canada via Paris on Thursday April 21.



Monday morning (April 18) we returned to the hospital for final tests and consultation. If I had experienced any signs of afib, or shown any abnormalities in the tests, Dr. Jais would have gone back in and fixed the problem on Monday afternoon and I would then have had to stay a couple more days in the hospital before being discharged. As it turned out, everything was fine, so after lunch I was finally discharged with prescriptions for Coumadin (to be taken for one to three months), the beta-blocker bisoprolol (to be taken for one month) and time-release potassium chloride (to be taken as needed to keep potassium level above 4.0 mmol/L). After saying our goodbyes we headed for Hotel Acanthe where we spent a most delightful 3 days exploring Bordeaux and nearby St. Emilion – but that, as Hans Christian Andersen would have said, is another story!

### **Postscript – October 2009**

After returning home I continued supplementing with potassium in order to ensure that my potassium level remained above 4.0 mmol/L. I have found that taking about 1500 mg/day of elemental potassium (in the form of potassium gluconate) spread throughout the day keeps the level at about 4.4 mmol/L – not taking any potassium drops it below 4.0 mmol/L. I have also discovered that I need to faithfully supplement with magnesium glycinate (400 mg/day) in order to stay free of PACs and PVCs. During the first year following my ablation in Bordeaux I did experience almost constant inappropriate sinus tachycardia with pulse rates as high as 115 bpm. I also had three short-lived, quite tolerable afib episodes (2006, 2008 and 2009) all initiated by triggers (MSG, alcohol and dehydration) that I knew from past experience were bad for me. My resting pulse rate is now back in the normal range (68-72 bpm). Life is great – and I am eternally grateful to Dr. Jais and Prof. Haissaguerre for giving it back to me!

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