THE AFIB REPORT
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My Analytical Road to Success?

By George E. Newman

Hans kindly asked me to contribute my story this month. First I'd like to say that I'm a bit new at this afib business and I'm not sure my success is long-lived enough to qualify as an example (and it is still a work in progress), however, I'm happy to contribute so that others can possibly learn from my experience. I can say that I'm sure I would not have the success I've had without the work of Hans, PC, Jackie, PeggyM, Fran and the many others who've come before me and generously shared their expertise and experience. For this I'm very grateful.

I'm a 49-year-old male vagal afibber. Like many on this site, I've been a life-long exerciser. I played American Football in college and then continued running until about 10 years ago, when I took up 4 miles of daily walking at a pace of about 11-12 minutes/mile. I found this kept me in sufficiently good condition to compete annually in a 13 1/3 mile race up Pikes Peak (a 14,000 ft peak, the race gains 7,850 ft in elevation). I could finish within 20 minutes of the 4 hr 20 min median time. I've also had a mostly vegan diet for 15 years and my blood chemistry has been excellent since then. In my early 20's, I was diagnosed with "white-coat hypertension." So, I've routinely taken my own blood pressure with a stethoscope and cuff since.

This last summer, I was again training for the Pikes Peak race. I was climbing 14,000 ft peaks on the weekends here in my home state of Colorado. One Thursday morning, in early July, I woke up and decided to take my blood pressure. It was fine, however, my pulse "sounded" weird. I took my pulse rate. It was about 80. This was unusual for me as my resting pulse is normally in the low 50's (and I had done no activity). I put on an old heart rate monitor and started walking around. Going up the stairs, my pulse soared to 150. Normally it would be 80 or 90 doing this. I really wondered what was happening to me. Was I having a heart attack? So I drove myself to the ER. They put me on a monitor, but my pulse converted to NSR before they could get a printout. The doctor did a variety of tests, chest x-rays, asked me if I drank (no), etc. The doctor sent me home with a Holter and said he thought it might be atrial flutter. The one significant item out of these tests was a low serum potassium (K) value of 3.2 mmol/l (normal range is 3.5-5.2 mmol/l). They did give me a potassium pill at the ER.

The following Tuesday, I went to my GP. He said my Holter was normal, one nonspecific run of 10 seconds and an average of 24 PVC's and 2 PAC's per hour. He wasn't too concerned, started me on a baby aspirin/day and told me to schedule a treadmill test, and a 30-day event monitor test.

The event monitor/treadmill tests were scheduled for a month hence. In the meantime, nobody was too concerned about my condition. I also learned that for me, it wasn't an ER event. This was important as I've been self-employed for 18 years and carry only very high deductible medical insurance. My ER bill was $2,500 and it would be very costly to keep paying for those visits. About two weeks after the 1st event, I had another one. It came on at 3 AM. This time, I put on my HR monitor and decided to watch it. I went ahead and went to the office and around noon I decided to see what would happen if I did a little exercise (I knew very little about my condition and did not even know that it was afib at this point). I found I could walk at a 15 min/mile pace and my HR would go to 140. When I slowed down, my HR would drop, so I wasn't too concerned. At one point, I had to sprint across a street to avoid traffic. My HR monitor shot up to 233 (I'm still not sure if this was real, as readings like this can also happen if one of the leads looses contact). I was a little concerned, however, after a couple of minutes, I had converted to NSR. I called my GP and told him what I had done. He said that I had acted properly.

I had two additional episodes before my treadmill test. They both came on about 3 AM and I converted them with exercise. When I took my treadmill test, it showed no underlying disease, and it did not put me into afib. I went quite a bit longer than my expected time. During the test, I told the cardiologist that my events came on at around 3 AM and I had been able to convert them to NSR with exercise. I asked, "How common is this?" He told me that I was the first patient he'd seen who could do this. Wow, I thought, I'm unique. I went home wearing an event monitor. Sure enough, I had another event. I even took a reading while in afib and exercising, then converted it and took another reading. These readings showed that I did have atrial fibrillation. Of course the HR that was reported was the one while I was exercising, not resting. My GP suggested a consultation with the cardiologist, but I hadn't scheduled one yet.

I went ahead and did my Pikes Peak race, with no problems. In the meantime, I'd done some Internet searching and found a couple of papers that reference vagal afib. The early morning initiation of afib and return to NSR with activity described in those papers fit my situation. I now knew I wasn't a solitary case. I also knew I wasn't going back to the cardio who had done my treadmill test! Three days after the race, I had another event. The only thing that was different is that I didn't convert on this one.

I asked around and got referrals to a cardiologist and an electrophysiologist. It turns out they were partners. I didn't know any different, so I went to see the cardio. By the time I had an appointment, I'd found www.afibbers.org and read Hans' book. Feeling well armed, I went to my first meeting and talked to the cardio about my 3 AM events and (up until now) conversion with exercise. I said I thought I was vagal. He said, "I don't believe in that." I was a bit shocked. I offered to bring in some papers to discuss with him. He said, "don't bother, I won't read them." He also said, "I'm sure I could find some papers in your field that you wouldn't agree with." Then he told me that digoxin was his favorite drug. I was really worried then. He ordered an echocardiogram and scheduled another appointment. He started me on Coumadin. My echo came back fine, but after 6 weeks in persistent afib my ejection fraction had dropped some. I could tell this in daily activities, as I got winded more easily. I was such a pain that he referred me to his partner the EP. I told the EP my story (3 AM and exercise conversion). He said, "you're obviously vagal, and there are a whole category of drugs that are contraindicated for you. We will not prescribe them." "Wonderful, finally somebody who has a clue!" I thought to myself. This guy sent me home with a Holter, so he could see what my average HR was, out of rhythm.

During the weeks this was happening, I read more and also had a few tests ordered by my GP and my integrative MD. These included an EXATEST for cellular levels of Mg (and other minerals), a Comprehensive Digestive Stool Analysis (CDSA) test, and a C-Reactive Protein (CRP) test. The EXATEST showed that I had low-normal magnesium levels, the CDSA, a very small amount of Candida and everything else looked good; and the CRP was very low. So, there was nothing obvious to treat. I did add some magnesium to my supplement plan.

The results of my Holter were that my average rate was ~80 when out of rhythm. The EP suggested that the best course of action was not to convert me, because of the risks of treating me with rhythm drugs if I converted and the fact that I was doing OK out of rhythm. We had already talked about this, so I had done my research. I'd read Hans' book and looked at all the reports of those who had managed to stay in rhythm with supplements. I also learned about flecainide on demand. So, I proposed my plan "B." It was 1) to convert me, 2) I would try to stay in rhythm with supplements and trigger avoidance, and 3) I would take flecainide on demand if 1 and 2 didn't work. He accepted my plan. He gave me a prescription for flecainide and at first thought he'd give me a 300 mg dose to see if I converted. Then he came back and said that the studies showed that this was only effective if given right after going out of rhythm. I'd been out of rhythm for 2 ½ months at this time. He told me to schedule a cardioversion in a couple of weeks. I got the prescription and went home. I looked at the pills and thought, "Well, I've already been cleared to take these, what do I have to lose?" I took a 300 mg dose and converted in about 18 hours. Needless to say, I was ecstatic after being out of rhythm for so long. I faxed a note to the EP who asked me to come in for an EKG to make sure I was doing OK on the flecainide. This turned out fine.

I went on my supplement program big time, determined to stay in rhythm (the conversion took me by surprise). This has worked well for 5 months. I did have one event at exactly 4 weeks. I determined that eating a bunch of junk, late was a trigger. I then thought back to my other events in the summer and could also remember similar triggers. At this point I decided to not eat after 7 PM. I wasn't sure if the trigger was GERD, hypoglycemia or a vagal response to eating, but early eating will help all of these.

I also wanted a finer gauge of how I was doing than "either I'm in afib", or "I'm not". To this end, I purchased a Polar S810 HR monitor, and the FreezeFramer HR monitor. They both accomplish the same thing, namely a beat to beat recording of your heart rate. The Polar records, and then the data is downloaded to your computer. The FreezeFramer has a finger cuff (now an ear cuff, too), which you wear while hooked up to your computer. You can watch the display in real time. Both devices suffer from artifacts and noise if you move around too much. I've taken to monitoring myself while meditating, as I am most still then. In recent testing with an EKG device[1], I've determined that I can differentiate PAC's from PVC ectopic beats. The PAC's have an anomalously fast beat or fast immediately followed by an anomalously slow beat. The PVC's have an anomalously slow beat[2]. Both the Polar and the FreezeFramer have the same PAC/PVC response. In testing the Polar with my EKG, I found that several anomalies that I thought were ½ period artifacts turned out to be real PVC's per the EKG. If you use a FreezeFramer, you need to make sure that the Enable Artifact Detection box is unchecked (this defeats the purpose), as well as uncheck the Enable HRT Filter box. In counting ectopics in a 20-minute period (the length of most meditations), I can see if I'm doing well with my program. My initial July Holter showed 24 PVC's and 2 PAC's per hour. Generally, I'm way below that now. My readings have ranged from 0 to 20 per hour, but most range in the 3 to 10 range. There is data to show that ectopics increase to 5 or 6 per minute right before the initiation of afib. I actually feel very few of my ectopics; in fact, I feel them only rarely and then only when I'm sitting quietly with a monitor on and my attention on my throat. The monitors pick up several orders of magnitude more ectopics than I feel.

I also wanted to address the possibility that my trigger was a hypoglycemia event. In addition, I had added about 10 pounds during my 2½-month afib event, and my blood pressure had crept up to 130/85. I wanted to address these issues also. I purchased a Bayer Ascencia home blood glucose monitor. It was the most accurate I could find. Many home models are very inaccurate (according to their own specs – OK for a diabetic, but not for my purposes). What I found was that hypoglycemia wasn't my problem, but hyperglycemia was. Hans' first book had also referenced that vagal afibbers might have a "flat" blood glucose response. This was not my case. I found that high glycemic index (GI) carbs could spike my blood sugar. Also the addition of fat, even "good" fat would keep my blood glucose high on a fasting test and so would a high GI meal. In a literature search, I found that this is because circulating lipids impair insulin's ability to work[4-7]. For me, I could get a 112 mg/d (6.2 mmol/l) reading on a fasting test by eating solely two helpings of ice cream for dinner, however, this would drop to the mid 80's (~4.7 mmol/l) the next day on a fasting test following a day of eating my no added fat, whole food vegan diet. I also found that drinking 1 liter of a whole fruit drink, that I make by grinding up whole apples, oranges and other fruits hardly moves my blood sugar at all.

After two weeks of paying attention to keeping my blood sugar even, I'd dropped the 10 pounds I'd added, and my fasting glucose and my blood pressure normalized. One detriment to this approach is the lack of essential fatty acids (EFA's) in the diet. There has been discussion of the fact that people don't convert fat from flax seeds to EFA's; however, there are some interesting abstracts on one of Hans' other sites. One reports the non-conversion of the flax-type fatty acid (percent of dietary fat not stated). However the other shows that people do convert, if their dietary fat intake is limited to 20% of calories (see the first two abstracts listed at http://www.oilofpisces.com/weightcontrol.html).

Now some people may think “this guy goes nuts buying stuff to measure himself.” You would probably be correct. However, you must remember that I have very high deductible insurance and if I can save one ER visit, I’ve paid out my monitoring investment many times.

Here is my supplement program:

Morning supplements, normally around 7 AM, with breakfast

2 mg Copper
1000 mg Taurine
800 mg NOW brand Trace minerals
200 mcg Selenium
B-50 B-complex
500 mg Vitamin C
400 IU Vitamin E
1000 mg Acetyl L-Carnitine
500 mg L-Tyrosine
500 mg L-Lysine

Mg & K

400 mg Magnesium Glycinate
400 mg Magnesium Maleate (will switch to only Glycinate when done with this bottle)
1.5 grams Now Brand KCl powder

Evening, normally around 6 PM, with dinner

Repeat the Mg & K

I also take CANDEX per directions to rid myself of any Candida, as per Jackie’s suggestion.

My best estimate is that the Mg, K, Taurine and Acetyl L-Carnitine are the most active with respect to afib. Also the B6 helps the absorption of magnesium. If you decide to go this route, start slowly and increase your dosages. Also, make sure your kidneys are OK, so have your BUN and creatinine levels checked. PeggyM says that when your stores of Mg are full, your bowel tolerance for Mg will decrease. At this point, just reduce your dosage till you don’t have a problem maintaining your Mg levels.

I don’t know that I’ve optimized this. At some point, I plan to repeat the EXATEST and see how I’m doing bringing the Mg levels up in my cells, or as PeggyM suggests, I can wait till I have a bowel tolerance problem and cut back my dosage then. All of these supplements have not helped my digestion, however, the addition of Betaine HCl and dietary enzymes seems to help this. I may add a pre-bedtime dose of K, as my morning ectopic samples are much lower if I do. However, I think that the chlorine in the KCl negatively affects my blood pressure. I may substitute the potassium gluconate and see if this will still lower my ectopics while not affecting my blood pressure.

My digestive system doesn’t really like all those fillers and capsules. However, if I can back off at all, my ectopic rate is right back up again. At some point, I’d like to see if I can accomplish the addition of these nutrients mostly within the confines of my vegan diet. However, since what I’m doing has kept me in NSR for 4 months, I’m loath to change it too much. One reason I chose the supplement route to begin with is that a dietary approach takes a lot more analysis and organization (perhaps not for the paleo or blood-type diet folks, but it does with my vegan plan and, otherwise, I do very well as a vegan with a lot more energy than my peers). Also, I’m very active, leading a youth group of 14- to 20-year-olds camping on a regular basis. It is much easier just to pack a few supplements.

As an aside, several months ago a friend also had his first two afib episodes. I suggested that he up his intake of Mg and K. He did this and now makes his own version of the PAC-Tamer. He has had no more afib episodes since he started the Mg and K.

Thanks to all for suffering through this long-winded story and I hope some of you find it useful.

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Postscript

I sent my story to Hans before going on a snow cave outing with my youth group. I snow shoed into our camp for 3 ½ hours carrying a 70-pound (32 kg) pack, breaking trail much of the time in >3 feet (1 meter) of snow. I then worked for another 4 ½ hours constructing a snow cave. Although I wasn't wearing a heart rate monitor, I can tell you that I was working at maximum exertion for those 8 hours. Also, the elevation was 10,500 ft (3,200 meters).

I crawled into my sleeping bag around 8 PM. At about midnight, I went into afib. I brought my flecainide along, so I decided to take a 300 mg dose (my conversion prescription). The instructions given on this board are to take it crushed in warm water as soon as possible after the start of the afib. Well, my water bottle had ice in it, as the cave temperature was below freezing (better than the –5 deg. F (-21 deg. C) outside). So, I chewed the three tablets and washed them down with ice water. Happily, I converted in less than 30 minutes. This was much better than my first two conversions on flecainide, 18 and 22 hours, and even exercise conversions I'd had. These ranged from 7 to 10 hours.

So, I've broken my four-month spell of not having to use my flecainide on demand as backup. However, I'm not unhappy – the plan I presented to my EP is still working. On this trip, I certainly stressed my system and probably messed up my electrolytes as well as being dehydrated from the exertion and altitude. The flecainide worked much more quickly than before. I would attribute this to all of the supplements I've taken. As I mentioned, this is a "work-in-progress", and I obviously need to fine tune my program if I want to continue exerting myself like this (some would observe that this would not be a bright move).

In addition, my blood glucose observation program has yielded an 18-pound weight loss in 8 weeks (usually with much more modest exercise than this latest outing). All in all, I'm very pleased with my progress. NSR to all readers!

Postscript – January 2006

I am very pleased to report that my last episode was on April 22, 2005, so it is nearly nine months of being afib-free.

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