THE AFIB REPORT

Your Premier Information Resource for Lone Atrial Fibrillation!

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In this issue we feature the poignant account of Carolyn Wright Smith's journey "From Disappointment to Triumph". Carolyn so accurately describes what many afibbers experience – *we keep going in the midst of our rhythm issues… sitting at desks and in classes, doing our work and homework with heart rates going off of the charts, shortness of breath, and times of near passing out. Just "normal" to us. We muscle through it hoping no one will notice, not mentioning symptoms to anyone in an effort to avert pity or drawing attention to ourselves, and holding onto the hope of quickly converting into NSR so we can safely drive home*. Diagnosed with afib at the age of 37 years, and after many trials and tribulations, she is now finally enjoying normal sinus rhythm. Thank you Carolyn for sharing your most uplifting story!

Also in this issue we report on Chinese researchers confirming that there is a strong genetic component in lone atrial fibrillation, that potassium deficiency is widespread, that ablation for right atrial flutter should be combined with a PVI procedure in order to avoid future arrhythmia issues, and finally, that medium-term results of ablations carried out using the Stereotaxis system with an irrigated catheter are promising and comparable to those obtained with manual ablation performed by experienced electrophysiologists.

Last but not least, if you need to restock your supplements, please remember that by ordering through my on-line vitamin store you will be helping to defray the cost of maintaining the web site and bulletin board. You can find the store at http://www.afibbers.org/vitamins.htm - your continuing support is truly appreciated.

Wishing you good health and lots of NSR,

Hans

Highlights

Long-term ablation results from Germany

HAMBURG, GERMANY. A group of electrophysiologists at St. Georg Hospital in Hamburg report their first long-term outcomes of catheter ablation for symptomatic, paroxysmal atrial fibrillation (AF). The study included 161 patients (75% men) with an average age of 60 years. The majority (80%) had no structural heart disease (lone AF), but 67% did have hypertension and 12% had coronary artery disease. The patients all underwent an anatomically-guided circumferential pulmonary vein isolation procedure (CPVI) with the endpoint being the absence of any electrical connection between the pulmonary veins and the left atrium 30 minutes after completing the procedure (measured with two Lasso catheters placed within the ipsilateral veins).

During a median follow-up period of 4.8 years, 53.4% of the patients experienced one or more atrial arrhythmias (AF, atrial flutter or atrial tachycardia) lasting more than 30 seconds and identified with ECG or Holter monitoring. The time intervals from procedure completion to the first atrial arrhythmia were as follows:

Within 1st month	36 patients (41.9%)
Between 1 and 3 months	7 patients (8.1%)
Between 3 and 6 months	7 patients (8.1%)
Between 6 and 12 months	12 patients (14.0%)
Between 12 and 24 months	14 patients (16.3%)
Between 24 and 36 months	2 patients (2.3%)
Between 36 and 48 months	4 patients (4.7%)
Between 48 and 60 months	3 patients (3.6%)
More than 5 years later	1 patient (1.2%)

Sufficient clinical improvement was observed in an additional 15 patients (9.3%) who did not require a repeat procedure. It would seem, considering the above date, that having a blanking period of a month or even 3 months could conceivably improve the single procedure success rate from 46.6% to closer to 70%.

Sixty-six patients underwent a second procedure a median of four months from the initial procedure with 56% of the repeats being done three months after the first procedure. Recovered pulmonary vein conduction was observed in 94% of patients. The success rate (no AF, no antiarrhythmics) was 74% after the second procedure. Finally, a third procedure was performed on 12 patients (a median of 21 months after the second procedure) bringing the final success rate to 79.5% after a median follow-up of 4.6 years.

The German researchers also introduced the term "clinical improvement" which was defined as having a greater than 90% reduction in atrial arrhythmia recurrence with or without the use of previously ineffective antiarrhythmics. According to this definition, 13% of patients achieved clinical improvement during a median follow-up of 4.6 years. They point out that only one patient progressed to permanent AF during the study and conclude that CPVI results in stable sinus rhythm in the majority of patients with paroxysmal AF and normal left ventricular function.

Ouyang, F, et al. Long-term results of catheter ablation in paroxysmal atrial fibrillation: Lessons from a 5-year follow-up. **Circulation**, *Vol. 122, December 7, 2010, pp. 2368-77*

Editor's comment: The results reported by the German group are indeed encouraging with a 79.5% complete success rate after a median follow-up of almost five years. However, it should be kept in mind that it required 1.5 procedures per patient, on average, to achieve this result. The finding that another 13% of the patients experienced a 90% reduction in their episode frequency is also a cause for celebration bringing the percentage of patients who benefited from the procedures at the 5-year mark to 93%.

Flutter ablation alone is not enough

MUNCIE, INDIANA. There is ample evidence that right atrial flutter and atrial fibrillation (AF) often coexist in the same patient. Although the patient may only have symptoms of one of the arrhythmias, the accompanying arrhythmia may be unmasked if the originally symptomatic arrhythmia is successfully dealt with. It is therefore fairly common practice to perform a right atrial flutter ablation or cavotricuspid isthmus (CTI) ablation after a pulmonary vein isolation (PVI) procedure in order to avoid a repeat to deal with possibly unmasked flutter.

A group of researchers at the Ball Memorial Hospital now reports that routinely performing a PVI procedure in combination with a CTI ablation in patients originally diagnosed with right atrial flutter only is safe and effective and reduces the incidence of any arrhythmia being present after follow-up (16 months in this study) by 43%. The study included 48 patients diagnosed with typical right atrial flutter as their sole arrhythmia. The average age was 56 years and 90% of the patients were male. They were randomized to receive a CTI ablation on its own (25 patients) or the CTI plus a circumferential, anatomically-guided PVI procedure (23 patients). Six patients in the CTI + PVI group also underwent a step-wise protocol consisting of ablation of complex fractionated electrograms, creation of a left atrial roof line and other lesions as necessary. Follow-up included monthly ECGs and 48-hour Holter monitoring every two months.

After an average follow-up of 16 months, all patients were free of flutter episodes, once again proving that a right atrial flutter ablation is safe and usually highly successful. However, in the CTI ablation group only 44% of patients were arrhythmia-free as 56% had developed AF following their flutter ablation – most doing so within the first year following their procedure. In contrast, in the CTI + PVI ablation group, not only were all patients free of flutter, but 87% were also free of AF (without medication) at the end of follow-up. The researchers conclude that undergoing a PVI procedure at the time of a CTI ablation results in significantly better long-term freedom from any arrhythmia.

Navarrete, A, et al. Ablation of atrial fibrillation at the time of cavotricuspid isthmus ablation in patients with atrial flutter without documented atrial fibrillation derives a better long-term benefit. **Journal of Cardiovascular Electrophysiology**, *Vol. 22, January 2011, pp. 34-38*

Editor's comment: Several of our surveys have shown that undergoing a right atrial flutter ablation on its own does not eliminate or even reduce the symptoms of coexisting AF. This, combined with the results of the above study, clearly supports the contention that CTI and PVI procedures should be combined in order to achieve the greatest chance of an arrhythmia-free future.

Medium-term outcome of robotic ablation

HAMBURG, GERMANY. An initial evaluation of the Stereotaxis Niobe II system for robot-assisted catheter ablation was performed at the Cleveland Clinic in 2007. The Cleveland researchers concluded that the Niobe II 4-mm tip ablation catheter was incapable of creating adequate lesions for successful atrial fibrillation (AF) ablation. They also noted frequent charring (33% of patients) at the catheter tip, which could lead to thromboembolic complications (ischemic stroke). As a result Biosense Webster, in cooperation with Stereotaxis, developed a novel open-irrigated, magnetic catheter designed to overcome the shortcomings of the prototype. This catheter, the Thermocool Navistar RMT, has now been evaluated by Dr. Karl-Heinz Kuck's group at St. Georg Hospital in Hamburg.

The evaluation included 28 patients who underwent a wide area circumferential pulmonary vein isolation (PVI) procedure using a first-generation irrigated catheter (group 1) and another 28 patients (Group 2) who underwent the same procedure using a redesigned, improved irrigated catheter. The average age of group 1 was 64 years with 79% being male, and 21 had paroxysmal AF, while the remaining 7 had the persistent variety. In group 2 the average age was 60 years with 71% being male, 18 had paroxysmal AF and 10 persistent. CARTO anatomically-guided mapping was used for all procedures and crossover to manual ablation was permitted if complete isolation had not been achieved after three hours of procedure time (necessary in 4 patients).

Follow-up included weekly telephone interviews and outpatient clinic visits at 1, 3, 6, 9, 12, 18 and 24 months after ablation. Antiarrhythmic therapy was continued for at least 3 months and discontinued if the patients were free of AF relapse. Total median procedure and fluoroscopy times declined from 370 minutes and 24 minutes in group 1 to 243 minutes and 16 minutes in group 2 indicating either a fairly steep learning curve or significant advantages of the second-generation catheter.

After a mean follow-up of 426 days (excluding a 3-month blanking period), 70% of the study participants were afib-free with or without the use of antiarrhythmics and 24% underwent a second procedure. While no complications were noted with the redesigned catheter (group 2), tip charring occurred in 61% of procedures in group 1, and one TIA was observed in group 1 prior to the design improvements. The German EPs conclude that ablation with the Stereotaxis Niobe II system and the redesigned catheter is feasible with a comparable success rate to that achieved with manual ablation.

J*ulian Chun, KR, et al. Remote-controlled magnetic pulmonary vein isolation using a new irrigated-tip catheter in patients with atrial fibrillation*. **Circulation Arrhythmia and Electrophysiology**, *Vol. 3, October 2010, pp. 458-64*

Editor's comment: In this issue we report on two relatively small-scale evaluations of the remote controlled Stereotaxis Niobe II system for ablation of AF. It would appear that redesign of the catheter has resulted in a system that produces outcomes comparable to what is achievable via manual ablation carried out by highly experienced EPs.

Evaluation of Stereotaxis system for catheter ablation

BORDEAUX, FRANCE. The use of robotic systems for catheter ablation of atrial fibrillation (AF) and other cardiac arrhythmias has been under development for several years. There are now two main systems – the Niobe II Stereotaxis and the Hansen Sensei. The Stereotaxis system uses a soft-tipped irrigated ablation catheter that can be guided to and positioned at the desired site by varying the field direction of two permanent magnets located on either side of the patient's body. The catheter contains three magnets within the tip segment and an irrigation channel and is operated by remote control from a shielded control room.

The Hansen Sensei system uses a robotic arm (placed next to the patient at groin level) which essentially guides a flexible sheath (tube) extending from the groin to the atria through the femoral vein. The ablation catheter is threaded through the sheath with only the tip (1 cm) extending from the sheath. The movement of the sheath can be closely controlled by the electrophysiologist sitting at a remotely located console. Both systems have the great advantage of limiting radiation exposure to the operator by a factor of 10 or more.

The Bordeaux group has now completed a small-scale evaluation of the Stereotaxis system. The study included 30 consecutive paroxysmal afibbers (average age of 60 years with 77% being male) of which **90% had lone AF**. The patients underwent an anatomically-guided (CARTO) pulmonary vein isolation (PVI) procedure using the Stereotaxis Niobe II ablation system accompanied by a cavotricuspid isthmus ablation when needed to eliminate right atrial flutter. NOTE: Six out of 120 veins were isolated using manual rather than robotic control. The total average procedure time was 263 minutes and average fluoroscopy time was 67 minutes. Patients were followed up at 1, 3, 6 and 12 months and in case of symptoms. After an average follow-up of 14 months, 69% of ablatees were free of atrial tachyarrhythmias (AF, atrial flutter, and atrial tachycardia). Four patients underwent a repeat ablation a year after the initial procedure. There were no major complications.

The outcome of the Stereotaxis procedure was compared with that of the standard, manually-guided procedure. This study included 44 consecutive paroxysmal afibbers (average age of 58 years with 84% being male) of which **89% had lone AF**. The patients underwent a standard PVI and right atrial flutter ablation as needed. The total average procedure time was 165 minutes and total fluoroscopy time was 47 minutes. After an average follow-up of 15 months, 61.8% in the group were free of atrial tachyarrhythmias without the use of antiarrhythmics. Seven patients underwent a repeat procedure a year after the initial procedure. There was one major complication (cardiac tamponade) which was resolved satisfactorily through percutaneous drainage.

The Bordeaux evaluators conclude that, in patients with paroxysmal AF, Stereotaxis-guided PVI with an irrigated tip, magnetic catheter backed up with manual ablation whenever required, is feasible. However, it requires longer ablation, fluoroscopy and procedural times than the conventional approach – at least during the early part of the learning curve.

Miyazaki, S, et al. Remote magnetic navigation with irrigated tip catheter for ablation of paroxysmal atrial fibrillation. **Circulation Arrhythmia and Electrophysiology**, *Vol. 3, December 2010, pp. 585-89*

Editor's comment: This study and the study carried out by Dr. Karl-Heinz Kuck at the St. Georg Hospital in Hamburg conclude that medium-term results obtained using the Stereotaxis system are comparable to those obtained using conventional manual ablation. Radiation exposure to the operator is significantly less than with manual operation and this will hopefully translate into a benefit to the patient as well, as operator experience improves.

Is lone AF inherited?

SHANGHAI, CHINA. Several studies, including our own 2003 LAF Survey, have concluded that there is a strong familial connection in lone atrial fibrillation – in other words, that a significant proportion of lone afibbers owe their condition to a genetic abnormality. Now a team of researchers from the Shanghai Chest Hospital confirms that inherited lone AF is by no means uncommon in China.

Their study included 382 unrelated lone afibbers (probands) and their first- and second-degree relatives for a total study population of 6,856 individuals (2,715 first-degree and 4,141 second-degree relatives). The 382 probands were recruited from consecutive patients admitted to hospital for AF during the period from February 1, 2000 to May 31, 2010. All participants were aged 60 years or below at enrolment and had no evidence of heart disease, hypertension, or any other condition which could predispose them to AF. In other words, they were truly "lone" afibbers. The average age at onset was 44 years, 58% were male, average resting heart rate was 74 bpm, and 90% had paroxysmal AF when first examined. During the duration of the study, 9% progressed to permanent AF. (NOTE: 39% of patients were on digoxin which is known to promote the progression of paroxysmal to permanent AF.)

Forty-one percent of the probands reported a positive family history of AF, with at least one relative having been diagnosed with AF. There were no significant differences between probands with and without relatives with AF; however, probands with no family history of AF were more likely to present initially with paroxysmal AF (93% vs. 86%). The familial prevalence of AF in the study group was compared to that found in an age- and sex-matched group of 15,500 individuals drawn from the general population. Overall, 41% of probands with lone AF had proof of familial evidence. Daughters of a proband with lone AF were 166 times more likely to inherit the disorder than were daughters in the general population. Other risk estimates are given below.

	Prevalence, %		
Relationship	Study Group	Control Group	Relative Risk*
Daughter	3.66	0.02	166 times higher
Son	4.23	0.11	37 times higher
Brother	14.60	0.53	27 times higher
Sister	13.50	0.55	24 times higher
Mother	12.57	2.58	5 times higher
Father	14.40	3.02	5 times higher

* Prevalence in study group divided by prevalence in control group

The Chinese researchers conclude that familial aggregation of lone AF is quite common and that it is equally transmitted through paternal and maternal sides of a family. They point out that the prevalence of AF in the "real" world is likely to be substantially higher than reported since many individuals are likely still undiagnosed or suffer from asymptomatic AF.

Yang, YQ, et al. Familial aggregation of lone atrial fibrillation in the Chinese population. **Internal Medicine**, *Vol. 49, 2010, pp. 2385-91*

Editor's comment: Our LAF Survey concluded that 43% of the group of lone afibbers participating in the survey had a close relative with arrhythmia. This number is clearly very close to the 41% reported in the Chinese study. Our survey revealed that 43% of 100 respondents had a close relative with cardiac arrhythmia (54% of mixed afibbers, 44% of permanent, 40% of vagal, and 25% of adrenergic). The most common "carrier" was the mother who accounted for 13 of the relatives (30%), siblings who accounted for 11 (26%), the father who accounted for 10 (23%), and grandparents who accounted for 3 (7%). Permanent afibbers reported the mother to be the "carrier" in 71% of cases. For adrenergic the mother was implicated in 50% of cases. The father was the predominant "carrier" among mixed afibbers (27%) and mothers, fathers and siblings shared the "honours" among vagal afibbers at 28% each.

The estimated overall prevalence of all cardiac arrhythmias in the United States is about 1% with atrial fibrillation accounting for about half of this. Cardiac arrhythmias are generally more common among older people. With only 1% of the general population having arrhythmia is it odd that 43% of the survey respondents had a close relative with arrhythmia? This question can really only be answered definitely by comparing the rate of arrhythmia among close relatives of a group of lone afibbers with the rate in a group of age- and sex-matched controls.

Nevertheless, it is possible to get some idea about the likelihood of a genetic connection. Although we afibbers tend to be an odd bunch, it is probably safe

to assume that we each had two biological parents?! This means that there were 23 cases among the 202 parents included in the survey or a rate of 11% - in other words, considerably higher than the 1% that would have been expected. This finding does not prove that LAF can be inherited, but it certainly supports the possibility.

The genetic connection is also supported by work done by Dr. Ramon Brugada and his colleagues at the Baylor College of Medicine and the University of Barcelona. These researchers located three families in Spain in which 21 of 49 family members had lone atrial fibrillation. They mapped their genes and concluded that in these families a mutation in a specific chromosome region (10q22-q24) was the cause of their atrial fibrillation. Dr. Maurits Allessie, MD of the University of Maastricht in the Netherlands makes several very interesting observations concerning these findings:

- If, as in the three Spanish families, lone atrial fibrillation in the general population is also caused by a genetic mutation, then Brugada's findings are of paramount importance.
- The possibility that small molecular defects in DNA can cause changes in the electrophysiologic properties of the atria that, in turn, create a substrate for chronic atrial fibrillation is not unlikely. NOTE: The term chronic in this statement does not mean permanent as opposed to paroxysmal, but rather that LAF is not an acute condition.
- The genes that encode adrenergic receptors are located at the observed mutation site on chromosome 10q. This means that the basis for familial atrial fibrillation could lie in abnormal atrial triggering mechanisms.

Dr. Allessie concludes, "*The anatomical and electrophysiologic features of the atria are such that there is only a narrow margin of safety between normal sinus rhythm and chronic atrial fibrillation.*" The above Chinese study, our survey findings of a possible genetic connection and the fascinating discoveries of Dr. Brugada and colleagues together with Dr. Allessie's profound observations certainly provide much food for thought and will hopefully be followed up by additional research.

The finding that some individuals have a genetic abnormality favouring lone atrial fibrillation does not mean that they are predestined to develop LAF, but it could mean that they need to be more vigilant in avoiding common triggers and known risk factors.

Potassium deficiency is widespread

VLAARDINGEN, THE NETHERLANDS. A group of Dutch researchers has summarized data regarding potassium intake in 21 countries. They found that China had the lowest average intake at 1.7 g/day, while Poland, Finland and the Netherlands averaged 3.7 g/day. The USA came in at 2.8 g/day and Canada averaged 3.0 g/day. In view of the fact that the recommended daily intake of potassium is 4.7 g (4700 mg), it is clear that a large part of the world's population is deficient.

The researchers calculate that achieving the recommended intake of 4700 mg/day of elemental potassium could reduce systolic blood pressure an average of 3 mm Hg and reduce the number of men with a systolic pressure above 140 mm Hg by 2 to 5% with an expected 4% reduction among women. Perhaps even more important, they estimate that attaining optimum potassium levels could reduce the risk of stroke mortality by 8 to 15% and that of heart disease mortality by 6 to 11%. It would take a reduction of 4 g/day of salt intake to achieve the same effect.

The lead author of the study, Dr. Linda van Mierlo, was asked if potassium supplementation would be a viable approach to increasing intake. She said that this is a possibility "*because in studies where they have given potassium supplements they did find lower blood pressure, but she cautions that it has been shown that the particular salt of potassium consumed is key. The anion seems to be important, with evidence that potassium chloride is less effective than potassium citrate, for example."*

van Mierlo, LAJ, et al. Suboptimal potassium intake and potential impact on population blood pressure. **Archives of Internal Medicine**, *Vol. 170, No. 16, September 13, 2010, pp. 1501-02*

Editor's comment: Attaining the recommended daily intake of potassium (4700 mg/day) is clearly important for afibbers, not only because doing so has been found to significantly reduce ectopics and

even afib episodes, but also because it reduces blood pressure and the risk of stroke and heart attack.

Real value of warfarin therapy

FIRENZE, ITALY. Several strictly controlled clinical trials have shown that anticoagulation (warfarin) therapy reduces the risk of cardioembolic stroke in atrial fibrillation (AF) patients with one or more risk factors for stroke. The relative importance of these risk factors has been classified in such stroke risk schemes as the $CHADS_2$ and CHA_2DS_2-VASc scores.

$CHADS_2$ Score

Age 75 years or older – 1 point
Hypertension – 1 point
Diabetes – 1 point
Congestive heart failure – 1 point
History of stroke or TIA – 2 points

CHA_2DS_2-VASc Score

Congestive heart failure – 1 point
Hypertension – 1 point
Age 75 years or older – 2 points
Age between 65 and 74 years – 1 point
History of stroke or TIA – 2 points
Vascular disease – 1 point
Diabetes mellitus – 1 point
Female gender – 1 point

According to the latest guidelines, warfarin therapy is generally recommended for a total risk score of 2 or higher, while aspirin or warfarin is recommended for a risk score of 1, and no antithrombotic therapy for a score of 0. Inasmuch as thrombi (blood clots) in AF-related cardioembolic stroke are fibrin-rich rather than platelet-rich, the value of aspirin in the protection against cardioembolic stroke is regularly being questioned. The authors of the present report call for a "paradigm shift" to better identify truly lower-risk patients who would not require any antithrombotic therapy, while all other patients would be prescribed an anticoagulant.

A group of Italian researchers now report the results of a study aimed at determining the value of stroke risk classification schemes in actually predicting stroke risk in already anticoagulated AF patients. Their study included 662 AF patients (64% male) with an average age of 74 years. The study participants had several stroke risk factors such as hypertension (64%), previous stroke/TIA (31%), and coronary artery disease or heart failure (45%).

During the follow-up period of 3.6 years, a total of 32 thromboembolic events occurred corresponding to an annual incidence rate of 1.3%. Neither the $CHADS_2$ nor CHA_2DS_2-VASc scores were particularly effective in predicting stroke risk since the only risk factor that actually did confer an increased risk of stroke (5.6-fold) was a previous history of stroke, TIA or other systemic embolism. Age, hypertension, diabetes, heart failure, female gender, and low left ventricular ejection fraction did no increase the risk of stroke in this elderly, anticoagulated group of AF patients. The authors conclude that current stroke risk scores have modest ability to predict stroke risk in anticoagulated patients.

Poli, D, et al. Stroke risk stratification in a "real-world" elderly anticoagulated atrial fibrillation population. **Journal of Cardiovascular Electrophysiology**, *Vol. 22, January 2011, pp. 25-30*

Boriani, G, et al. The challenge of preventing stroke in elderly patients with atrial fibrillation. **Journal of Cardiovascular Electrophysiology**, *Vol. 22, January 2011, pp. 31-33*

Editor's comment: First off, it should be kept in mind that cardioembolic strokes constitute only about 15% of all strokes, so protecting against this form of stroke by no means guarantees that one will not suffer an ischemic or hemorrhagic stroke. It would seem that warfarin therapy is not adequate to protect afibbers with a history of TIA, stroke or other embolic events against a repeat of these. On the other hand, having diabetes, heart failure, hypertension, or being over the age of 75 years do not increase stroke/TIA risk in anticoagulated AF patients.

My LAF Journey – From Disappointment to Triumph

by Carolyn Wright Smith

I've been "accompanied" on my LAF journey with afibbers.org since 2001 when the site was a simple blog. Having found nowhere else to obtain comprehensive information on LAF, your site was so incredibly helpful. The wealth of information provided through your organization, over these many years, has given me both hope and validation I wasn't alone or losing my mind. Reading the stories and data you and others have contributed has made a tremendous difference in my life. Knowledge is power. I've participated in several surveys Afibbers.org has sent out. The data resulting from these surveys is vital, and, to many of us, the most reliable.

At 37 (1998), I was diagnosed with LAF after suffering a mini-stroke. After writing to you in 2004, you were most kind to provide me with a complimentary subscription to *The AFIB Report*. This has been a tremendous blessing as my health has never really returned since becoming hyperthyroid on Amiodarone followed by an open-heart Cryo Maze procedure also in 2004.

The Maze, not surprisingly, failed six months later. Regardless, I resumed my studies at The University of Denver on a full scholarship (being a woman over 40 has its advantages); unable to work most of that time. It has been my perception and experience in the past that most employers tend to respond to LAF with fear… of the unknown… secretly thinking we're a liability that might keel over at any moment. A perceived mess they would rather not risk.

As so many afibbers have experienced, we keep going in the midst of our rhythm issues… sitting at desks and in classes, doing our work and homework with heart rates going off of the charts, shortness of breath, and times of near passing out. Just "normal" to us. We muscle through it hoping no one will notice, not mentioning symptoms to anyone in an effort to avert pity or drawing attention to ourselves, and holding onto the hope of quickly converting into NSR so we can safely drive home. We do homework in the ICU while being dosed up on Tikosyn and then Flecainide and then back to Rythmol SR when those fail or the side-effects make it impossible to function. We go through so many years drifting through life in an afib fog. I am blessed to still be here and able to attend my daughter's high school and subsequent college graduations; cheer her on as she completes her Masters; and, attend my own graduation, Cum Laude from DU with a BA in Information Technology Studies and Minor in Business Administration (2009). Better late than never!

In June 2010, I convinced a small IT company to hire me as an intern. They then offered me full time employment (entry level IT) which included insurance coverage with Kaiser. Over the years, I've never let my coverage lapse… ever. No small feat as we all know. For financial reasons I had to make a choice between Rythmol SR and Coumadin before Kaiser's coverage took effect. I chose the former. As the Rythmol SR began to fail again, in September 2010, I suffered another one of many TIAs. My current employer has been amazing! I was fortunate to be referred to a brilliant Kaiser EP Cardiologist and Surgeon, Dr. Laurent Lewkowiez, who performed a Catheter Ablation at St. Joseph's Hospital in Denver on December 22, 2010. Although I've had a few, small breakthrough episodes, I'm already feeling better than I have since 2003. Dr. Lewkowiez said, regarding my Maze procedure, "they did the most invasive procedure using the least effective method."

It is my hope that by sharing, if my story touches one person, inspires hope, or confirms that on this afib journey we are not alone, it will make it all worthwhile. The afibbers.org stories of triumph and disappointment gave me courage to keep pushing forward through the years. They helped me to appreciate and be thankful for the good days, so that the "lost" days wouldn't be bitter. It is my belief that life is 98% attitude and 2% of what we have no control over. If you have a positive attitude, it greatly influences the other 2%. Everything is how you choose to look at it.

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