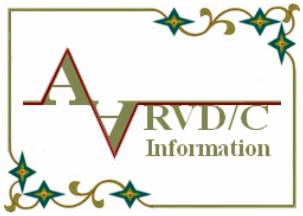
To Run or not to Run

An avid runner for nearly 6 decades, Gary Dexheimer was diagnosed with ARVD in March 2008. In August 2008, Gary wrote the following article for his local track club's newsletter. The article was a sequel to Gary's, *The Last Run* about which he wrote:

> "Of course, this was about my diagnosis and the year of symptoms and various diagnoses leading up to this finding. In trying to figure out why I am still here, I am hell bent on educating the masses."



ARVD-ARVC-Info.com

As a former president of his nearly 1500 member track club, one who had previously written training articles, and one who was once far more recognizable in his running circle, Gary wrote…

V-Tach
Are You at Risk?

Gary Dexheimer © August 2008

Throughout my running career I have been a major proponent of the "no pain no gain" philosophy. Anyone who understands athletics or strives for some individual level of accomplishment whatever that level might be, knows that you can't just be an occasional runner and that determination and commitment are paramount. I didn't win a state championship or run through college without the understanding that I would be fully committed to this endeavor.

I can clearly recall most of the major injuries, some of the illnesses and the times that while I knew better, like the postman "neither rain, snow or sleet", would keep me from my run. I am sure that I came back too soon from injuries and elective surgeries. I know that there were many occasions when I drug myself out of bed just to get in a run. Several years ago I recall running while moaning from the discomfort of breathing, when I very may well have had pneumonia. There simply are no shortcuts to success.

Craig Cook would agree. I read his blog on http://V-tach.blogspot.com. As an accomplished 39 year old elite cyclist who spent years racing in Europe, he suddenly developed a ventricular arrhythmia. He wrote his blog as a resource for other endurance athletes who might have arrhythmias. Following two ablation procedures on his heart and the implanting of an ICD (internal cardioverter defibrillator) he no longer competes and is still alive to enjoy the remainder of his life.

He further notes that Gyorgy Kolonics, a 36 year old 2000 Olympic Gold medalist is no longer competing as he died of a sudden cardiac arrhythmia while training. There were no ablations or ICDs for this athlete.

Marco Villa, an Italian 39 year old elite cyclist was recently forced into retirement due to a sudden development of cardiac arrhythmias.

Our own running community was shocked when we heard the news that Ryan Shay passed away following a sudden cardiac arrest during the early miles of the past U.S. Olympic Trials Marathon.

Running, canoeing, and cycling do not kill athletes. Not listening to your body, possibly training through illness and certainly not recognizing the subtle signs of cardiac arrhythmia's, can kill athletes suddenly and right in the prime condition of their lives.

Twenty percent of sudden deaths may be attributed to a genetic condition called ARVD. I now know that this is most likely what caused my development of life threatening arrhythmias. I have now been to Johns Hopkins Hospital to review my case with the leading ARVD cardiology researchers in the U.S. I have done the requisite genetic testing to determine whether I have one of the four known genes. I was fortunate to be part of a continuing Ball State study initiated by Dr. David Costill on former collegiate athletes. I submitted an ECG to the staff at Johns Hopkins from 1991 and it showed the suspicious T wave inversion that is often found in ARVD patients.

In receiving the clinical notes following my review by the staff, I discovered that my cardiac arrhythmias were recorded while I wore a 24 hour holter monitor. During this period I jogged walked both days for four miles using my stubborn training philosophy to insure that anything of use would be recorded. The results showed over 63,000 premature ventricular contractions, almost 2200 runs of ventricular tachycardia one lasting almost 2500 beats and I encountered a maximum heart rate of 261. What doesn't kill you will certainly make you better!

I can't change one's will to train and the possible risks associated with this. I tasted success and loved every part of that. Success may be measured in just finishing your first marathon or for the least of a few it may mean making an Olympic team. For many of us it is about the waistline or the endorphins. We take the risks because they are small but for a few these can prove deadly. Johns Hopkins thinks ARVD in the general population is greater then assumed but that most people will never develop this because they are not testing themselves daily as athletes.

Research shows that desmosomes are defective in individuals with ARVD. These are the glue that keep cells adhered to each other. Strenuous exercise causes these cells to let go and as a result fat cells may fill in the voids leaving the ventricles scarred. The production of adrenaline is also thought to play a role in this development.

My rationale for writing this is to not justify or scare those novice exercisers or seasoned runners out of continuing their respective programs. In fact, logic would convince us that the risk associated with developing any life threatening arrhythmias would have to be very small. My reason for writing this is to "do as I say not as I do." We logically know that running and training are long term propositions so pay attention to your body.

The symptoms I felt were very subtle but as an athlete that knows my body I knew that something was not right. Rethink the "I can't miss a day philosophy". For all of the risks I took there is no specific reason to think that I contributed to my condition. In fact, I often helped in my injury recovery process by "getting back in the saddle" earlier then recommended. Johns Hopkins believes that the damage to my heart began around age 31. However, there are those

before us that have died. Did they notice the subtle signs or did they simply believe that to achieve they needed to push beyond their pain?

I made another birthday so I am the lucky one. If you suspect that you might have an unusual breathing problem, slight chest pain, sudden change in your fitness level, subtle chest palpitations or any indications of an irregular heart rate do yourself a favor and see your doctor. A simple ECG, or if needed an echocardiogram and use of a holter monitor, may end up saving your life.

Without a problem you can ignore my recommendations and take your flu or cold ridden body and hit the track for some high energy intervals. For additional information on ARVD visit www.ARVD.com. For information on Sudden Cardiac Arrest visit http://aahfn.org/assets/SCAA%20National%20Announcement.pdf.

I would be happy to discuss what led to my discovery and can be contacted by email at: Garyd8949 at AOL dot com

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ARVD-ARVC-Info.com thanks Gary Dexheimer for permission to publish his article and offers the following resources for additional reading.

ADDITIONAL READING:

Reduced right ventricular ejection fraction in endurance athletes presenting with ventricular arrhythmias: a quantitative angiographic assessment (European Heart Journal (2007) 28, 345–353)
http://eurheartj.oxfordjournals.org/cgi/content/abstract/28/3/345

An American Heart Association (AHA) Scientific Statement:
Recommendations for Physical Activity and Recreational Sports Participation for Young Patients With Genetic Cardiovascular Diseases (Circulation. 2004; 109:2807-2816)
http://circ.ahajournals.org/cgi/content/full/109/22/2807
http://circ.ahajournals.org/cgi/content/full/109/22/2807/TBL1

The following are references specific to ARVD, exercise and sports activities:

Exercise and the ARVD Diagnosed Person
http://arvd-arvc-info.com/WebX?233@@.6858da49!enclosure=.6858da4a

A SERIOUS CONCERN: Strenuous or Competitive Exercise and ARVD
http://www.forumxperts.com/WebX/ARVD/ExerciseAndARVD

Excerpts/information from an AHA Scientific Statement …
Recommendations for "physical or sport" activity and ARVD/ARVC
http://arvd-arvc-info.com/WebX?233@@.6858d6f2!enclosure=.6858d6f3