

Holter Happenings at



Celebrating our 15 year Anniversary!

Special points of interest:

- Alba Medical offers all things Holter including Sales, Service and scanning services
- Alba Medical is the only Holter company with a complete veterinary department for all your canine Holter needs!
- Check us out on Facebook for Holter tips, Question/Answer sessions, client interaction and more!

By John Ziemann, President, ALBA Medical

Now that our company is 15 years old, I sometimes reflect on our modest beginnings. In 1999, I was living in a rented apartment in New York City. My landlord had an extra room on my floor that he was keeping for himself – an 8 x 8 foot room that served as a storage closet for his junk. I had to convince him to rent me this room. I told him my job was letting me “work from home”. There was no need to tell him that I was quitting my job. Also “my job” was giving me an extra \$150 per month for a home office, and that is how I got his attention.

Soon after that conversation, he moved out his junk, and I made the place my own. I felt like “the king in the castle” in my 64 square feet (6 square meter) “Corporate Headquarters”. I bought a giant desk that basically took up the whole room. I was unconsciously planning to grow. I was there for one year in total. The company earned \$59 in our first month and \$855 in our second month. In our 12th month, our company had earned over \$25,000. I was offering services and products that people needed, and the company was an instant success.

Today in 2014, our company is in our third and largest location. We are still a small company, but much bigger than we were in that tiny office space. Today we have over 2400 active customers in more than 40 countries in the world. Our canine division includes a boarded Veterinary Cardiologist, our four full-time Holter Technicians and a team of breed-specific Sales Managers who offer years of experience in their specialized fields. Together, this team offers ALBA Medical clients complete Holter support every step of the way making our 15 year anniversary possible.

I hope you enjoy this newsletter. I am very grateful for our Sales Manager Dawn Danner and our Cardiologist Dr. Carl Sammarco for the exceptional content that they have added. I am also very grateful for you: our ALBA Medical customer!



THE BOSS

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A word from Dr Carl D Sammarco, BVSc, MRCVS, Diplomate ACVIM

Understanding Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC) in Boxer Dogs

Boxer dogs are prone to developing a heart disease called arrhythmogenic right ventricular cardiomyopathy (ARVC). This disease was formerly known as Boxer cardiomyopathy, but since there are similarities to ARVC in humans, the name of the disease was changed to ARVC for Boxers as well.

ARVC entails the progressive replacement of heart muscle with fatty tissue. This change in the heart muscle leads to arrhythmias and sometimes a poor contracting or functioning heart muscle and a condition called dilated cardiomyopathy (DCM). In the United States, more Boxers appear to be affected with arrhythmias alone, without DCM. In Europe, Boxers more often have DCM with or without arrhythmias, as opposed to just the arrhythmia alone. The arrhythmias seen are ventricular premature beats (VPCs) that can come as single beats, pairs, triplets or longer runs. Longer sustained runs are what typically produce clinical signs.



The disease can be seen as early as 2 years of age, but the average age of presentation is 7 years of age. More male dogs than female dogs are seen with ARVC. Clinical signs for the disease include fainting, exercise intolerance, weakness, lethargy, coughing, trouble breathing or sudden death. However, not all dogs with arrhythmias will have symptoms. The level of arrhythmia does not always predict the clinical signs. Many dogs with ARVC, with frequent VPCs, may live asymptomatic normal lives. Dogs that have 20,000 to 30,000 VPCs with no runs may feel tired or have less energy.

(continues on page 7)



Meet your Holter Technician Marian

HOW DID I GET HERE??

A brief bio by Marian Kloss



I'm sure most of you know me as the person who reads the Canine Holters for ALBA Medical. Well yes, that's what I do! How I got here is another story....

I received my bachelors degree in Sociology from Douglass College of Rutgers University in 1976 with the intention of going on to receive a Masters degree in Social Work. I changed my mind about that plan and accepted a customer service position with Colonial Penn Insurance Company in Philadelphia. After 2 years I was promoted to middle management as a technical advisor in the customer service division where I was responsible for procedures documentation as well as staffing, production, and salary reporting.

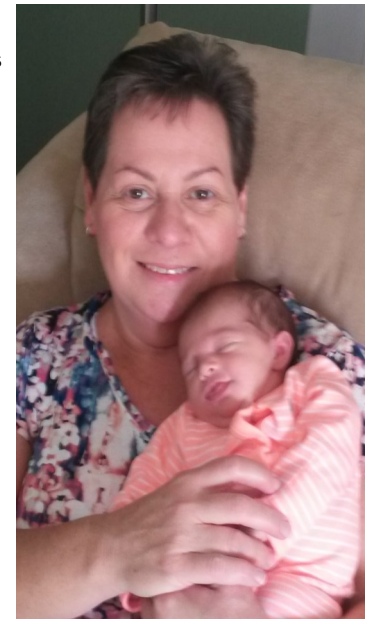
Once the commute between South Jersey and Philadelphia began to interfere with my plans to have children, in 1981 I took a job with a local Medical Practice. They were looking to train someone to read HOLTER MONITORS. At that time, I didn't even know what a Holter Monitor was!!! Several EKG classes later combined with lots of studying and a great "on the job" mentor, I learned all about the heart and cardiac rhythm!! I stayed with this practice for 20 years during which time I studied and was trained to perform several types of cardiovascular tests. Then, in 1999 it was time for the practice to purchase a new Holter Monitoring System. Well guess who sold them that new system? None other than John Ziemann!! I guess John had a good eye for good people (wink wink) because in 2001 he asked me if I would like to work for him. He had ventured out on his own to establish ALBA Medical Systems and needed more hands to handle the higher workload! And as you might have guessed, I accepted his job offer.

Originally, ALBA's customer base was primarily medical practices (aka Humans) and then some time in 2003 John was approached by the Canine community regarding Holtering dogs. And that's when all the insanity began (haha)! Although some can be VERY tedious, I enjoy reading the K9 Holters and like to think that it's a worthwhile service to the dog community. The stressful part is my need to be accurate. Accuracy is something I pride myself in. It was necessary from my very first job after college and it is something I consider a priority in my current job at ALBA.

I live in Burlington, NJ with my husband Steve who is a Pharmacist. He has been in the "business" for the past 30+ years and is looking forward to retirement!! The most important thing to us is our family. We have 2 daughters; Deanna and Genna. Deanna lives in Elizabethtown, PA with her husband Matt. They are both physical therapists. Genna is currently living in Baltimore, MD. She received her nursing degree at Hopkins and is working in their PICU.

Pets you ask? There are currently no pets in our home... we've had our share of loving cats. We do have 2 grand doggies Eddie and Koa who entertain us constantly whenever they visit and we love having them around.

However, our greatest joy occurred on July 28th when Deanna gave birth to our first grandchild, Zoey Marie! We feel so blessed! So now I'm at the beginning of another new chapter called grandparenthood. Retirement is slowly approaching but I'm not ready for that yet!!!



"Accuracy is something I pride myself in. It was necessary from my very first job after college and it is something I consider a priority in my current job at Alba"

Marian

Cassette Corner

The cassette (analog) Holter monitor is where everything started regarding all things Holter! This unit has proven itself a workhorse over the years for our canines. Unfortunately over time, this technology is becoming somewhat dated and will eventually become obsolete.

Alba Medical is still currently able to process studies from analog units in addition to our exchange program should your unit be in need of service. The protocol for out-of-warranty Alba

units is as follows: Send back your unit with a check for \$100



+ \$10 shipping + \$30 for wires (if necessary), and we will send out a different refurbished unit with a new one year warranty!

There will come a point in time

when the processing of tapes will no longer be an option to us. We will keep you posted as that time draws near in the years ahead.

FEE INCREASE as of 1-1-15 Cassette Holter study reports will increase from \$30.00 to \$40.00 per 24hr study. This increase is needed for proper compensation between cassette and digital time analysis with our experienced technicians. Digital studies will remain unchanged at \$30.00 per 24hr study. Save money and think *DIGITAL* to decrease your re-occurring report fees!

*FEE INCREASE:
Cassette service will be \$40/scan starting in 2015. Digital service will stay at \$30/scan.*

Got Cassette.....GO DIGITAL via trade-in option today!

When its time, go Digital and SAVE \$\$

Trade in your existing Alba cassette Holter for a brand new DR200 Holter monitor for only \$995.00. The retail value of the DR200 is \$1,400.00. The DR200 is the smallest Holter unit available to date and light weight at only 3.5oz. In addition, digital units feature NO moving parts or jammed tapes.

The DR200 records to a reusable SD card formatted for Holter use, uses one AA battery, transmits via the internet for FAST turn around times, and checks your hookup prior to start of study! Yes its true, no more guessing games about your hookup here or mailing of cassette tapes! This small unit comes complete with a 3 yr warranty, card reader, 5 hookup kits and 3 SD cards. Transmission is EASY using the Alba Medical drop-box. Everyone who upgrades LOVES digital!

“Everyone who upgrades LOVES digital!”



Customer Highlight: Mount Hood Doberman Pinscher Club

Mount Hood Doberman Pinscher club (MHDPC), Portland OR USA, was Alba Medical’s first Doberman Client. MHDPC purchased their first cassette Holter monitor in 2002 under the direction of their then President. The club appointed a Holter Chairman who hooked up member owned dogs, tracked equipment/vest usage and collected rental fees. The project progressed gradually as

interest increased with its members. By 2006, the club had collected enough rental fees to purchase their first digital Holter which was followed by a second digital unit in 2008.



With multiple units now available, club members enjoy Holtering multiple dogs during one 24hr event thus saving trips for hook-up and time needed to monitor dogs while wearing equipment.

Today the club houses units at two different veterinary hospitals on opposite sides of town allowing members easy access to Holter units when needed.

“With Multiple units now available, club members enjoy Holtering Multiple dogs during one 24hr event...”



Thinking Digital: Lets Compare units *side by side*

DR180 Digital Holter Unit



- First Generation Digital Unit
- Used (refurbished) Unit
- Limited availability DR180
- 1 year Warranty
- 5 or 7 lead configuration
- Weight 7oz
- Size of large smart phone
- 2 AA batteries
- Records to reusable Holter formatted CF card
- **Checks users hookup prior to start for quality of recording**
- Identifies patient with pre-entered numerical ID
- Screw driver needed to remove wires
- Easy internet upload via simple dropbox
- 24-48hr turn around time during normal business hours
- Comes with 2 CF cards, card reader and 5 hookup kits
- Great way to go Digital on a Budget
- Retail \$750.00
- Cost of 24hr Holter Report \$30.00
- Replacement Wires \$65-\$75.00

DR200 Digital Holter Unit



- Second Generation Digital Unit
- Brand New Unit / **Some Used units available**
- Unlimited availability NEWDR200/**limited numbers used DR200R**
- 3 year Warranty NEW / **1 year Warranty USED**
- 5 or 7 lead configuration
- Weight 3 oz
- Size of a beeper
- 1 AA battery
- Records to reusable Holter formatted SD card
- **Checks users hookup prior to start for quality of recording**
- Identifies patient with pre-entered numerical or alpha ID
- No Screw driver needed to remove wires
- Easy internet upload via simple dropbox
- 24-48hr turn around time during normal business hours
- Comes with 3 SD cards, card reader and 5 hookup kits
- The smallest, lightest weight unit available today!
- Retail \$1,400.00 NEW / **Retail \$995.00 USED**
- Cost of 24hr Holter Report \$30.00
- Replacement wires \$65-\$75.00

Holter TIPS for everyone:

- ◆ A birthday month is a great time to Holter your dog! Celebrate each birthday with a Holter report.
- ◆ Check electrodes for moist contact, dry electrodes do not transmit information well. **Expired electrodes are the NUMBER ONE reason tests fail.**
- ◆ Open sealed electrodes and use immediately. Left-over pieces should NOT be saved for use at a later time. These electrodes will dry out and could be non-operational.
- ◆ If zeros reported on digital screen during setup, remove and replace electrodes, then test wires.
- ◆ Consider purchasing one set of backup leads for each unit in the event of sudden damage
- ◆ New batteries should be utilized for each Holter study.
- ◆ New cassette tape should be utilized for each Holter study.
- ◆ Hookup kits are needed for both types of units, keep them on hand and ready to go keeping in mind expiration dates.
- ◆ Repair services available. No need to be without a functional Holter unit.
- ◆ If your current leads are found to be shorter that you would like, longer leads are now available for



Breed Update: Dobermans

Lets face the facts that no one wants to hear, 50% of Dobermans will develop DCM at some point in their life! Some young, some old and many middle aged! That's right, flip a coin if you will face it head on! This disease **IS NOT** a line problem, it is a **BREED PROBLEM**. There is no such thing as a cardio free line, it just doesn't exist! The sooner we stop blaming breeders for something that has been present SINCE the breeds very creation, the better off the future of our breed will be.

The key to your Doberman's longevity is testing!

The Holter monitor is still the earliest detection test available to date. Finding DCM in its earliest stage opens the door for treatment. Medications can double the normal occult (hidden) phase of the disease, many studies suggest by 2 years or more, before overt signs or sudden death are apparent.

Holter early and often! Your monitor does your dog no good sitting in the closet collecting dust! The more monitors that

are available to owners, the more dogs will get tested and found before sudden death/ congestive heart failure.

Encourage your local DPCA chapter clubs to participate in a Holter project which will allow their members regular access by investing in a unit today.

Holter Guidelines:

- Baseline at 2 yrs old
- Annually til 5yrs old
- Biannually there after or as indicated

"This disease IS NOT a line problem, it is a BREED PROBLEM! There is no such thing as a cardio free line....."

Meet Veterinary Sales Manager Dawn D Danner CVT

Ms Danner joined the Alba Medical team in 2009 to assist fellow breeders/owners in "all things Holter". Client education has always been her passion! Professionally, Dawn graduated from Pacific University in 1993 majoring in Biology with a minor in chemistry. Dawn is a Certified Veterinary Technician (CVT) at a busy small animal practice in Portland, Oregon where she also heads the hospital as Practice Manager since 1997.

In her spare time, she is President of Mount Hood Doberman Pinscher Club (MHDPC) and chairs the club's Holter monitor projects and biannual heart clinics to help stamp out DCM. The Club's Holter monitors/health clinics over the last 10 years have identified and "saved" numerous dogs from early DCM deaths!

As a breeder, Dawn has been active in the sport of purebred dogs since 1987. She

whelped her first litter of Doberman puppies under the Sunset prefix in 1991. Breeding, on average, a litter about every other year has yielded a small yet successful breeding program.



Have a Heart.....HOLTER!
Sunsetdobe.com
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"Client education, Dobermans, and Veterinary Medicine have always been her passion"



New ALBA Breed: Shiloh Shepherds

The International Shiloh Shepherd Registry (ISSR) has made it mandatory for ALL potential breeding pups to be Holter monitored before they can be used for breeding as adults. This protocol should help to eliminate GSDIVA from the ISSR Shiloh Shepherd gene pool within a few generations.



German Shepherd Dog Inherited Ventricular Arrhythmia (GSDIVA), is an inherited heart condition that can cause sudden death in Shiloh Shepherd puppies. The amount of the Ventricular Arrhythmias (VA) is age dependent. Before 12 weeks (3 months) of age Premature Ventricular Contractions (PVCs) are rare but gradually increase with a peak frequency of VA, including Ventricular Tachycardia (VT), between 24 to 28 weeks (6 to 7 months) of

age. Death most often occurs between the age of 16 to 32 weeks (4 to 8 months) and usually during sleep in the early morning hours or a resting period after exercise. After 28 weeks (7 months) the number of VA decreases such that many dogs after 100 weeks (25 months) of age no longer have arrhythmias and are not at risk. The most severely affected dogs do continue to have occasional VA. Diagnosis is determined by using a Holter Monitor. Breeding from lines of affected dogs is not recommended.

Symptoms

There are no outward symptoms of GSDIVA and the dog appears to be healthy and normal until sudden death occurs - caused by the degeneration of VT into Ventricular Fibrillation (VF).

Diagnosis

The only way to diagnose GSDIVA is by Holter monitoring. Ideally between the ages of 24 and 28 weeks (6 and 7 months).

Treatment

With use of antiarrhythmic agents. A combination of the drugs Mexiletine and Sotalol has been found to be the most effective in treating German Shepherd Dogs. Stress and excitement should be limited. Note: All antiarrhythmic drugs have the potential to cause Proarrhythmia and should be used with caution.

Common Digital Dilemmas

Holter cards

All digital Holter units record data to a re-useable media card. These cards come with your unit pre-formatted for Holter use. Each card contains a flash.dat file which is needed for the monitor to properly store data. The date stamp seen when the card is viewed on your computer prior to upload is the DATE the card was formatted, not the date of the current Holter study being transmitted. The only way to erase your card is WITH your Holter unit, NOT by erasing the file with your computer. We find the easiest way to accomplish this is by erasing full cards as needed when hooking dogs up. The unit will always prompt you to erase the card if the current flash.dat file is full.



Checking Holter Hook-Up

One of the benefits of digital, is the ability to check your hookup signal strength prior to the start of your study. All Holter monitors record 3 channels (tracings) of ECG at any one time. In the end, we only need one valid complete channel to produce your final Holter report. During Holter setup, we are looking for a reading of 3 (average) to 5 (best) for each channel prior to start. Once these readings are confirmed, your study may begin. Poor readings of less than 3 could be due to poor contact with skin, dried/expired electrodes, or faulty/damaged wiring harnesses. Having extra electrodes/wiring harnesses on hand make trouble shooting these issues easier.

Power Loss

All digital Holter units are designed with No on/off switch to prevent accidental powering down of the unit during a study. In the event of a power loss, the unit is designed to automatically restart the recording IF we are within a one hour window of the power fail. The unit has an internal battery which keeps the date/time in addition to the battery used during recording.

If the power fail is intentional by the user to reset the card or double check the hookup:

- pull battery
- wait 65 minutes
- replace battery which will restart the patient data entry process.

.....Dr Carl Sammarco continued from page 1

Diagnosis of ARVC is made with use of 24 hour electrocardiogram (ECG) recording, also called a Holter recording. After a Holter is removed, the number and type of arrhythmias are analyzed.

- ◆ less than 100 ventricular premature beats is considered **normal**
- ◆ greater than 100, but less than 300 with no triplets or runs, on one Holter, are **equivocal**. In this case, the Holter recording should be repeated.
- ◆ 100 to 300 VPCs in 24 hours, with triplets or runs, is considered **abnormal**.
- ◆ **Greater than 300 is definitively abnormal for Boxer dogs.**

ARVC can be further staged with gene testing, electrocardiogram, blood work, chest radiographs (X-rays of chest) and echocardiogram.

The current gene test is run by Dr Kate Meurs at North Carolina State University College of Veterinary Medicine. Test results will show if a Boxer is homozygous (two copies of the abnormal gene), heterozygous (one copy) or negative for the gene. Homozygous cases may have more significant numbers of arrhythmias and appear to have a higher risk of sudden death. Genetically, this disease shows variable penetrance. Variable penetrance of a genetic mutation means some individuals will not show the disease until they get older and that some individuals with mutation will never show the disease.

Treatment for ARVC is based on multiple case factors. Asymptomatic dogs cause a treatment dilemma because drugs that prevent arrhythmias, known as anti-arrhythmic drugs, do have side effects, and some can have pro-arrhythmia effects. In asymptomatic dogs, Holter changes that may indicate starting therapy include the presence of one or all of these: greater than 1000 VPCs/24 hour, ventricular tachycardia, or evidence of the R on T phenomenon. Fish oil supplementation can reduce the number of VPCS on a Holter. Unfortunately, no studies have been done to show if fish oil supplementation improves survival.

Therapy for symptomatic dogs can reduce clinical signs of disease, increase energy, decrease episodes; however there is no evidence that medical therapy prevents sudden death.

Some studies looking at the progression of the disease have identified possible poor prognostic indicators including: fainting, greater than 10,000/VPC 24 hours, and more than 200 runs of ventricular tachycardia (VT). Fainting has been shown to be a poor prognostic sign in one study, but not corroborated in a later study. In cases where fainting is present, veterinarians would be more likely to treat the arrhythmia.

In summary, ARVC is a serious and potentially fatal disease most commonly found in Boxer dogs. Although there is no cure, we can control the arrhythmia to improve quality of life, and in many cases, extend life. Diagnosis is best using a Holter monitor, but other supportive tests help in staging the patient. Treatment should be tailored to the individual patient based on history, physical examination and results of diagnostic testing.



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Dr Carl Sammarco is a board certified veterinary cardiologist through the American College of Internal Medicine and has been practicing cardiology for 23 years. He did his cardiology training at University of Pennsylvania Veterinary School of Veterinary Medicine where he was also a lecturer and assistant professor. During his time there he started an open heart surgery program to repair and replace the mitral valve in dogs with chronic valve disease (CVD). Dr. Sammarco has a special interest in minimal invasive procedures to correct arrhythmias, congenital heart disease and treatment of collapsing tracheas. He has been the senior clinician in the cardiology service at Red Bank Veterinary Hospital in New Jersey for last 13 years.



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New Product Highlight

We are happy to announce that we have acquired a relatively large number of used DR200 Holters. This is the newest, smallest digital Holter Monitor that we sell. The units that we are offering for sale will be on our webstore under the product number DR200R. The R in the product number refers to "refurbished". The units are cosmetically near-perfect, and have been tested 100%. The units will be shipped with all accessories just like the new DR200 package that we sell. You will receive 3 SD flash cards, 5 hook-up kits, wires, carrying case, USB flash card reader, all documentation and a one-year warranty. The DR200 has always been the best choice in Canine Holter Monitoring, and now it is an even better for budget-conscious veterinary clients. The normal webstore price will be \$995, but you will save \$50 with coupon code "NEWSLETTER". If you already have a digital Holter, can you think of a friend or colleague who might benefit from this coupon?

 Valid online or by phone
Expires 12/31/14

\$50 OFF

a DR200R Digital Holter
Coupon Code: NEWSLETTER

FINAL PRICE: \$945

