Society of SVBT Veterinary Behavior Technicians

THE BEHAVIOR PERSPECTIVE

"Empowering the Veterinary Behavior Team Through Education"

Volume 6, Issue 1 Autumn 2006

PRESIDENT'S MESSAGE

I have just come back from St. Louis and a wave of relief washed over me. The board has been so busy this past year organizing their first CE event that we have barely had time to come up for air. Securing sponsors and products, making sure that we had a plan for every glitch...I think I was more nervous coming into this event than I was on my wedding day! So how did it all turn out? I am pleased to announce that SVBT's first CE meeting was an overwhelming success! Between Jefferson College and SVBT, we had nearly 125 attendees. SVBT members showed up in force, nearly 50 of you! Sixteen states and Canada were represented; I do believe that this speaks volumes for veterinary technicians interested in behavior.

Saturday started off with a bang with two of our veteran speakers and board members: Ginny Price and Marcia Ritchie. We then had a Q&A with the SVBT board about many of the behavior products that were donated for the meeting. After this we split up and the Humane Society of Missouri (HSMO) staff gave a tour of their state of the art facility while the rest of held our annual board meeting. The evening ended with the SVBT reception that was sponsored by Hill's. The reception was for all the attendees and we got to mingle and get to know one another better. We were honored to have the President of the HSMO among us and some of the HSMO staff. Had it not been for them, and particularly Linda Campbell, the weekend would not have been the huge success that is was. Sunday was lots of laughs with interactive puppy and kitten sessions and enough raffle prizes that nearly everyone went home with something. The speakers were as awesome as everyone expected. We did have one speaker who stood out above all the rest, captivating the audience with her humor and knowledge. Angela Martin-Licari, as Ginny would say, "YOU ROCK!" After all of the meetings the SVBT board met to "wrap up" the weekend. We talked until the wee hours of the morning knowing we all had to fly back home the next day. It was during this meeting that we decided to donate the raffle proceeds back to the Humane Society of Missouri's behavior department.

The Board continues to maintain and improve our ongoing projects while investigating, evaluating, and developing new ones. Our ongoing commitment to empower technicians through education will continue to grow this year. We currently have a small international membership and it was suggested that we extend our voice internationally to reach more technicians. With the guidance of SVBT member Leanne Barker in Alberta, Canada, we will do just that. Thank you Leann!

Our greatest challenge continues to be acquiring and maintaining sponsorship income to support our goals. With the increasing demand for sponsorship support from many different veterinary organizations, we are but one voice in the crowd. I urge each of our members to speak about SVBT to anyone who will listen. As our presence grows, so will our support.

Many of you indicated that you were ready to become involved in a committee this year. I will be contacting committee chairs with your names and you will hear from them in the coming months. We are all busy people and know you can't dedicate a huge chunk of your time to SVBT. Often all we need is a few fresh ideas, or a few hours two or three times per year to help with projects. If you have special talents outside of behavior medicine please let me know. I'm sure we can find a place to utilize them!

I would like to leave you with a little humor. When I received the following email from a friend, I couldn't help but laugh. I wish some of our behavior clients would follow such simple advice!

Bubba went to a psychiatrist. "I've got problems. Every time I go to bed, I think there's somebody under it. I'm scared. I think I'm going crazy." The psychiatrist said "Just put yourself in my hands for one year. Come talk to me three times a week, and we should be able to get rid of those fears."

(Just as many of our clients, Bubba was

President, continued on pg. 8

Product Review

The Treat & Train System

By Kristen White, CVT

THE TREAT AND TRAIN is a remote control, automated treat/food dispenser developed by Dr. Sophia Yin. It was developed to help dog owners decrease barking, jumping and other unruly behaviors. Dog owners are able to teach their dogs to be calmer, have a steady down stay, and numerous other counter conditioning exercises. You can either plug it into the wall or run it on batteries, making it portable. Due to its portability it can be used in the yard to help teach retrieves, recalls and agility obstacles. Think of it as a remote control clicker! It has a tone sound on it that signals to your pet that they have done the right thing and then a treat comes out. There are also controls that you can set to determine how many treats come out at a time. In addition to this, there is a down/stay function that you can use instead of the remote to dispense treats at certain set intervals, or you can set it to give treats at random intervals.

In private practice there are a number of uses for the Treat and Train (think outside the box!). It can be used in clinic to desensitize dogs to nail trims and grooming. I also have an extra treat and train that I rent to clients to use for behavior modification. If a client only needs it for a short time the rental works well and if they will be needing one for long term use this allows the client to try it out before they spend the money to purchase one. Don't just limit its use to dogs, cats can learn to use the treat and train as well.

My own personal success with the Treat and Train was to teach my German shepherd, Holly, not to chase my cats. She doesn't hurt them, she wants to play, but my cats don't appreciate the 96 lb. dog chasing them through the house! While I have not perfected this behavior we are well on our way. She already had a good down stay on her bed when I started, but when the cats ran by she would chase them. I used the Treat and Train to reward her for holding a down/stay while I would walk into the doorway holding a cat. The great thing about the Treat and Train is that the remote works through walls. I was able to reward Holly while I was out of sight to retrieve a cat from another room and then continue when I appeared in the doorway holding a cat. At first I kept our training sessions very short because while she would hold her down/stay she would whine when she saw one of the cats. We gradually worked up to being in the doorway for longer periods of time and then built up to walking by her and sitting across from her on the couch. Each time we changed a location we would decrease the time. I also found that I had to rotate cats. I have three cats and I learned that if I presented a new cat we had to go back to square one, but we were able to progress through the steps much quicker. We are at the point now that if one of the cats come running through she will only get up to chase them about 40% of the time rather than 90% in the beginning. Now I just have to work on the cats to teach them that they don't HAVE to run by anymore! The same idea could be used if you have a multi-cat household with one aggressor cat.

Dr. Yin's website is www.nerdbook.com. The website has information on the development of the Treat and Train as well as suggestions for other uses and video clips demonstrating some of the uses. Another great resource is the Treat and Train Yahoo group (http://tech.groups.yahoo.com/group/treatntrain/) for people to discuss problems and successes with their units. The Treat and Train is now available to order at www.petking.net. The possibilities for its use are endless; you are only limited by your own imagination.

Dog and cat together in the same room – use of "Down Stay" Function.

Kristen has been working in the veterinary field for the past 17 years, the last 13 of which have been at the Animal and Bird Hospital of Clearwater in Florida. In 2000 she went back to school to obtain her AS in veterinary technology at St. Petersburg College. At her present job she is the practice manager as well as running puppy classes and assisting with all behavior cases. Kristen is on the advisory board for the veterinary assistant program at Tarpon Springs High School. She has given several lectures there and at other secondary schools about canine behavior and clicker training. She has also spoken for the Suncoast Avian Society about captive bird behavior and clicker training. Recently she was a speaker at the SVBT CE meeting in St. Louis, MO.

In 2004 Kristen attended the 3-day Small Animal Behavior course at University of Georgia. Then in 2005 she attended both the 5-day spring DOGS! Course and the 3-day fall Dogs and Cats course at Purdue University. She is currently working towards her bachelor's degree in veterinary technology at St. Petersburg College and plans to begin teaching the associate level behavior course there next year. She continues to expand her behavior knowledge through CE courses and reading on her own.

The Effect of Hypothyroid Function on Canine Behavior

L. P. Aronson*, W. J. Dodds
*PetShrink, 117 Lyman Rd, Berlin, MA 01503, USA
Hemopet, 11330 Markon Dr, Garden Grove, CA 92841, USA
*Corresponding author: dvm@petshrink.com

The SVBT would like to thank Purdue University Press, Daniel Mills, and Linda Aronson for allowing us to reprint the following research as presented at the International Veterinary Behavior Meeting held in Minneapolis, MN in July of 2005.

Introduction

In human medicine, a wide range of behavioral symptoms have been reported in hypothyroid patients. In the early stages of the disease, reduced cognitive function and concentration, together with impaired short-term memory, may be easily confused with attention deficit-hyperactivity disorder (AD/HD) (Hauser et al 1993). Visual and auditory hallucinations can be mistaken for schizophrenia or psychosis. Fear, ranging from mild anxiety to frank paranoia; mood swings; and aggression have also been reported in hypothyroid patients (Denicoff et al 1990). We have seen a comparable range of behavioral manifestation in dogs (Canis familiaris), particularly in those whose hypothyroidism has not progressed to the more traditional skin, coat and metabolic changes characteristic of the condition. Thyroid hormones modulate the activity of norepinephrine (Heal & Smith 1988), serotonin (Bauer et al 2002) and their receptors (Sandrini et al 1996). In hypothyroid animals, 5-HT turnover increases in the brainstem, while cortical 5-HT concentrations and 5-HT2A receptor density may decrease. Administration of thyroid hormone to hypothyroid animals increases cortical 5-HT concentration and desensitizes autoinhibitory 5-HT1A receptors in the raphe area, thereby disinhibiting cortical and hippocampal 5-HT release. There is also evidence that thyroid hormones increase the sensitivity of 5-HT2 receptors (Bauer et al 2002).

In human medicine, thyroid hormones are frequently used to accelerate the anti-depressant effect of tricyclic antidepressants and selective serotonin reuptake inhibitors, which can often take 3 or 4 weeks to produce a noticeable psychiatric effect (Sandrini et al 1996; Altshuler et al 2003). Gur et al (1999) demonstrated that in rats (Rattus norvegicus) administration of triiodothyronine (T3) for 7 days at a dose of 0.1 mg/kg SQ q 24h resulted in comparable elevation of basal 5-HT levels in the frontal cortex to those achieved after 4 weeks of clomipramine at a dose of 10mg/kg IP q 24h. Thyroid hormones may also be given to supplement the effect of antidepressants when they are not achieving the desired effect.

Deficiencies of thyroid, adrenal cortex and sex hormones impair learning and the ability to store memories and behave normally. The adrenal hormones are directly involved in learning and behavior, while thyroid and sex hormones appear to modulate learning, memory and behavior at a higher level (Fedotova 2000). Hypothyroidism often reduces cortisol clearance. Conversely, glucocorticoids inhibit TSH release in response to thyrotropin releasing hormone (Otsuki et al 1973), reduce conversion of T4 to T3 (Chopra et al 1975) and have direct effects on the thyroid gland itself (Kemppainen et al 1983), so that stress could further diminish the function of a suboptimal thyroid. The thyroid-adrenal axis could be expected to affect behavior at all levels.

Materials and Methods

Diagnosis

Simply relying upon the total thyroxine (T4) test alone has been shown to give misleading results in an estimated 40 percent of dogs (Dodds 1997), whereas 62 percent of dogs were misdiagnosed with an in-house ELISA test kit (Lurye et al 2002). Likewise, the canine thyroid stimulating hormone (cTSH) test produces false positive and negative results between 20 and 40 percent of the time, and so is considered to be only 70 per cent predictive of primary canine hypothyroidism (Iversen et al 1999; Marca et al 2001). Complete thyroid profiling (total and free T3 and total and free T4 levels, as well as circulating levels of thyroglobulin autoantibodies (TgAA), and T3 and T4 autoantibodies) should be performed. However, this information must be examined in conjunction with clinical evaluation of the animal. Reference ranges offered by most laboratories do not adequately address the disparate needs of different groups of dogs. Basal levels should be higher in toy and small breeds and somewhat lower in giant or very large breeds as well as sight-hounds (Dodds 1995; Gaughan et al 2001; Hill et al 2001). Basal levels should be higher in young dogs (up to about 18 months of age) and lower in geriatric animals (Wolford et al, 1987; Dodds 1995). A variety of circumstances can affect the optimal thyroid levels for an individual. These would include athletic/performance activities (Evason et al 2004); altered levels of sex hormones – due to such causes as estrous, pregnancy or lactation; obesity; sickness or recent recovery from illness; vaccination; anesthesia or drugs that may influence thyroid function – corticosteroids, phenobarbital, potentiated sulfonamides, dietary soy or soy phytoestrogens, insulin, narcotic analgesics, salicylates, tricyclic antidepressants, furosemide, phenylbutazone and mitotane (Dodds 1995, 1997). Superimposed upon these effects are daily diurnal fluctuations in hormone levels. It is possible to accurately assess thyroid function in the face of these conditions, but they cannot be ignored.

Subjects

Thyroid function data were obtained for more than 1500 dogs presented to veterinarians for a range of behavioral problems. Some dogs were referred to the authors for treatment; others we consulted on but did not see personally. Thyroid function was

Behavior, continued on pg. 5

Small Animal Behaviour: A Team Approach

The Winning UGA Scholarship Essay

By: Leanne Barker, AHT, CPDT, IT

Teamwork is an essential component of our successful training & behaviour modification protocol. Every aspect of the behavioural modification process – from the receptionist reserving a behavioural evaluation, through to the "homework assignments" for the client – consists of contribution from a team.

"Ruby", a two-year-old female coon-hound-cross was scheduled for an evaluation due to the guardians' (owners') concern of what they reported as "dog aggressive behaviour." To ensure the safety of everyone involved, our team implemented a standard precautionary routine, which included the receptionist gathering a brief history with current vaccination records and scheduling the appointment without crossing paths with another dog. In addition to this, over the telephone, safety procedure instructions for the guardians were given prior to the appointment and arrangements to fax or e-mail these details were made to ensure full compliance.

These precautionary details included which entrance to use, in order to reduce the stimulation for "Ruby," and who would be meeting the guardians at the entrance with the appropriate safety equipment. In "Ruby's" case, our trainer simply provided a leather lead and sturdy collar for the guardians to fit onto "Ruby" and lead her into the facility, as they had arrived with nothing more than a nylon piece of rope slipped around her neck and bundled around their bare hands. The receptionist, trainer, and the guardians worked as a team to ensure a safe and comfortable entry to the training facility.

Once "Ruby" was in the training room, it was apparent that she might not be as big of hazard as we may have prepared for, but it was better safe than sorry. She appeared to be calm and composed in the environment and upon completion of the session, the guardians had divulged that their concern about "Ruby's" behaviour was not as strong as the neighbour's complaints regarding her barking at their (the neighbour's) shar pei. "Ruby's" guardians had brought her to us to gratify the demands of their neighbour. Although both neighbours were not interested in attending the consultation, together, in co-operation, they had agreed to attempt to resolve the issue without legal action through this behaviour and training approach.

It was evident that "Ruby's" family was also concerned about her behaviour, but also expressed, as many people do in the same situation, that the neighbour's dog, "Star" was not completely innocent either. They were quite frustrated with the situation and were not confident that addressing only "Ruby's" behaviour would be sufficient enough to resolve the issue. This was when I, as the behaviour consultant, suggested having a video recording of the "aggressive barking" and the surrounding environments to get a clear analysis of the situation in order to design the most effective 'treatment' plan. The family complied by submitting a great video the following week.

Every aspect of the behavioural modification process – from the receptionist reserving a behavioural evaluation, through to the "homework assignments" for the client – consists of contribution from a team.

After observing the video and reviewing the complete situation with "Ruby's" guardians, it was agreed that there may have been more than just "Ruby's" behaviour causing the disturbances which resulted in what they were calling "dog aggressive" behaviours. To facilitate the best results, I wanted to compliment any training program we designed for "Ruby" with modifications to the environment, especially the chain link fence which divided the yards, possibly contributing to the situation. I was also eager to suggest that we invite the neighbours to attend a session, with or without "Star," but "Ruby's" family insisted that even if they offered to pay for it, that the neighbours would probably not co-operate. This is where it became obvious that the teamwork required for complete success appeared to have some weaknesses.

Fortunately for everyone, during my appointment at "Ruby's" home for a behaviour modification session, I had the opportunity to observe both dogs together and witnessed "Star" exhibiting seizure-like symptoms. As I am not a veterinarian, and unable to diagnose, I inquired with "Ruby's" family if anyone was aware of these symptoms "Star" seemed to display. To everyone's surprise, nobody had considered that this odd behaviour may be a medical condition and might also be important to consider in "Ruby's" reactions. Due to the fact that this was early in our training relationship, I had not deducted that there may be some other underlying contributors, like "Star's" health that may impede our progress, and stimulate "Ruby" in unexpected ways.

Leanne Barker, AHT, CPDT, IT

As an Animal Health Technologist, I feel it necessary to be very cautious in these situations, not to imply that I have diagnosed or suggest an illness without a complete veterinary examination. My challenge at that juncture was to approach the neighbours in a non-invasive manner with my suspicions and not scare or offend them. Knowing that there was already neighbourly tension about the "aggression" between the dogs, I wondered if I should approach "Star's" guardians alone, or if I should invite "Ruby's" family to introduce me. After considering the options, "Ruby's" family was more than agreeable to participate in the introductions.

Thankfully, "Star's" guardians were both home at that time and came outside to meet me. They seemed quite

Team Approach, continued on pg. 9

Behavior, from pg. 3

determined based on laboratory results, clinical presentation, and other factors as described above. While some dogs would be deemed hypothyroid by any laboratory, others would be described as borderline or having suboptimal thyroid function. The reference ranges used for adult dogs are as follows: TT4 optimal range 2-4 ug/dL; free T4 optimal range 1-3ug/dL; TT3 optimal range 50-150 ng/dL; free T3 optimal range 3-8 pg/dL; T4 AA <2.0; T3 AA <2.0; TgAA <20. However, depending upon the specific case demographics, these may vary. There are different optimal ranges for puppies, geriatrics, large/giant breeds and sight-hounds. These optimal ranges have been developed over 20+ years of data collection and analysis by the second author. Cases were considered 'borderline' when some of the analytes of the profile were below the optimal ranges, but other analytes were within the lowest end of the optimal reference ranges. Follow up was obtained on one or more occasions with post-treatment complete thyroid profiles and interviews with the referring clinic and/or client. This is an on-going study and earlier reports have been made on some of these data (Dodman et al 1995; Aronson & Dodman 1997; Dodds 1997, 2004; Aronson 1998; Dodds &Aronson 1999.)

Results

Of the 1500 cases presented for behavioral problems, 921 (61 %) were determined to be hypothyroid or have suboptimal thyroid function using the determined criteria. Statistical analysis of the first 499 cases using neural network correlative analysis has been undertaken and showed a highly statistically significant relationship between thyroid dysfunction and dog-to-human aggression (p =<0.001, with a suggestion of a trend also towards dog-to-dog aggression (p slightly > 0.05). Other behavioral associations remain to be analyzed. Spayed and castrated animals are at greater risk than intact ones; mid sized and larger breeds are also more likely to be affected; the incidence is far greater in purebred dogs.

Treatment was recommended with levothyroxine sodium at a dose of 0.1mg/5.5 – 7.0 kg body weight, per os, q12h. (Doses were adjusted to allow for age, breed and other factors affecting the individual dog.) Follow up was not available for all cases referred. In those for which it was available, 62 per cent showed greater than 50 per cent behavioral improvement (36 per cent showed more than 75 per cent improvement to complete resolution of the problem), 25 per cent showed between 25 and 50 percent improvement, 10 percent failed to improve and 2 per cent got worse. A favorable behavioral response to thyroid replacement therapy was usually apparent within the first week of treatment, although metabolic deficits were not corrected for three weeks, and skin and coat issues could take months to resolve.

Discussion

Behavioral Presentations

In dogs, as in humans, hypothyroidism appears to present as impaired mental function; reasoned behavior is lost in favor of a panicked response. In general, behavioral problems are most noticeable when the animal is psychologically or physiologically stressed. The behaviors displayed by hypothyroid dogs fall into several distinct patterns.

In some animals problems appear at a very early age (6 months or less). They generally show poor or variable attachment to their owners, and they are difficult to train. Behaviors are lost from one training session to the next. Owners often describe these dogs as appearing to have AD/HD. These dogs may become fixated on one activity – such as playing Frisbee – and only value their owners' presence for providing this.

Perhaps more common is the dog that exhibits a sudden change of personality and behavior at puberty or as a young adult. It may be that this is the age at which owners become more aware of the behaviors as the animal is larger and more difficult to live with, and odd behaviors that may be tolerated in a puppy become less endearing. Neutering usually has little or no effect on the behaviors, which may intensify as the dog ages. While certain breeds are over-represented, and distinct familial patterns may be observed, breed or lack thereof, cannot rule the condition out. Those breeds most represented include those in which allergies and other immune problems are also most common. These would include: English Setter, Golden Retriever, Akita, Rottweiler, Doberman Pinscher, English Springer Spaniel, Shetland Sheepdog, and German Shepherd Dog. Like their younger cohorts, these dogs may show few, if any, signs of being hypothyroid other than behavioral ones. As opposed to being lethargic and obese, these dogs are often underweight and hyperactive. Many have a worried or tragic appearance. They may have seasonal allergies; recurrent skin, ear and foot infections; shed excessively; and/or chronic gastrointestinal problems. Some of these dogs present with a sudden onset of aggression - usually owner directed or intraspecific. Others will become fearful, whining incessantly, and showing nervousness in new situations or around strangers; they may hyperventilate and sweat excessively. Their fear may also lead to aggression. Some dogs develop apparently obsessive behaviors such as tail chasing and pacing.

These same changes can occur in adult dogs. Separation anxiety may appear suddenly. Noise phobias – particularly thunderstorm phobia - most commonly arise in this group. This is also the stage at which some dogs start to show other signs of hypothyroidism – lethargy, weight gain, reduced energy, change in the character of the bark. Superstitious behaviors - watching the ceiling or wall for no apparent reason, refusing to walk on particular surfaces - may appear. Episodic dyscontrol and other behaviors related to partial seizures are also seen. Although not a behavioral phenomenon per se, tonic clonic seizure activity is also commonly related to hypothyroidism. Particularly noticeable in performance and service dogs, some will lose concentration and no longer be able to perform at their previous skill level.

Older dogs may suddenly become irritable and show aggression, food guarding and other behaviors at complete odds to their younger selves. They sleep more, seek out heat sources, and show reduced scenting, hearing and visual acuity. While these signs might be attributed to advancing age or even cognitive dysfunction, they will resolve with treatment of the hypothyroidism along with the behavioral problems.

The prevalence of hypothyroidism within the canine population is unknown, but is estimated in some breeds to be as high as 40 percent, and there is evidence

Behavior, continued on pg. 10

The Gala Event of the Season: SVBT's 5th Birthday Bash!

New officers were installed, awards were presented, and much fun was had by all!

Marcia Ritchie, Pam Mahlie, Melissa Spooner and Lynn Lower visit with dogs available for adoption.

Angela & Terri

Cassandra Vong becomes Past President, Donna Dyer leaves the BOD and Tara Lang takes over as President

SVBT Member of the Year Pam Mahlie

Angela Licari proving you don't need PowerPoint

SVBT birthday cake

Pam & Karen at the reception

SVBT table

Reception

...and then there was food!

Exhibits

Want to find out what you missed? Check the website www.SVBT.org for the opportunity to purchase the SVBT meeting proceedings notes or extra copies of the SVBT's *Getting Started in Behavior* booklet!

President, from page 1

concerned about the cost). "How much do you charge?" The doctor replied "Eighty dollars per visit." Bubba decided to sleep on it. He never went back.

Six months later the psychiatrist met Bubba on the street. "Why didn't you ever come to see about those fears you were having?" Bubba replied, "Well eighty bucks a visit three times a week for a year is an awful lot of money! A bartender cured me for just $10. I was so happy to have saved all that money I went and bought me a new pickup!" Sarcastically the psychiatrist asked, "And how, may I ask, did a bartender cure you?" "He told me to cut the legs off the bed! Ain't nobody under there now!!!"

Prevention is the key to many behavior problems. Don't overlook the obvious!

Tara Lang, BS, RVT

WANTED: Articles, Reviews, and Case Studies.....

You've read the newsletter, now contribute! My goal as editor is to increase the number of articles, reviews and case studies published by OUR members over the next 12 months. If you have an idea for an article, would like to try a new product and let others know if it works, or have a case that you'd like to share please email me: amandamiller@mfire.com. If you want to write but need a suggestion or ideas I can help with those as well!

Editor's Bark

What a wild time! I think there are many of us still recovering from the CE meeting in St. Louis and I'm guessing those who went on to the APDT meeting are really beat! I was glad to come home and go to bed before 3am. There is nothing like late nights working together towards a common goal to really bond people together. That's what happened for many of us who were in attendance in St. Louis – strangers becoming quick friends and comrades in arms.

It amazes me how cohesive members of our organization are. We get off planes from all across the country, meet and greet each other, have lunch or dinner together and within a few hours it's like we've known each other forever. The resounding echo I heard was "There is no other group I've ever been involved with that I enjoyed so much, or people I felt so comfortable with." And they weren't just saying that because we plied them with free dog biscuits, toasted ravioli, tennis balls, and cat toys! We're just really normal people – admittedly our own definition of normal - who have the same goals as other technicians involved in behavior – we want to make a difference in the lives of the animals we work with.

Making a difference in what we do everyday is important to all of us. If I can get one owner to use heartworm prevention all year, get one person to take off a pinch collar, find that one roundworm egg in the diarrhea, and find that one article for a colleague .... it makes a difference. When there are many of us with that same drive and goal we can make a much larger impact, maybe change the way technicians who follow us will think about animal behavior or are trained in animal behavior. It's worth it. The members of this group - the SVBT – do and will continue to make a difference.

For those of you who were wondering - Lynn and I did make our flight, barely. Picture two RVT's running through the airport singing the theme song to Rocky while laughing hysterically, then getting stuck at security for my belt – we were never so happy to see our luggage loaded onto a plane as we were that day.

Rule #101: Never take a group of veterinary technicians who like animal behavior to the zoo three hours before their plane leaves.

Amanda Eick-Miller, RVT

Team Approach, from pg. 4

interested about how we were progressing with "Ruby's" training and were happy to see their neighbours 'finally' making an attempt to resolve their problems. When I had inquired if they had ever witnessed "Star" display any symptoms like I had seen that evening, they confessed that they had seen it before, about once a week, but didn't think it was anything to be concerned about – certainly not serious enough to consider seeing a veterinarian over.

After careful coaching on the subject, when we were alone, I realized that the family was not in a financial situation to invest in an exam, and would not be able to afford any medication that may be necessary to maintain "Star's" health if it was prescribed. To please my own interests and mostly to assist them in their situation, I offered to invest in the initial exam to get an assessment and possible diagnosis before getting too worried about the possible problems they may be facing. In addition, I mentioned that there are some community organizations, including clinics that actively assist families needing financial assistance for unexpected veterinary costs and this may be something that would qualify if they wished to pursue that avenue. The family accepted my offer, with the implication that they wished to keep our financial agreement confidential, to avoid embarrassment and discrimination towards "Star" from their neighbours and vet. I understood and agreed to be discreet.

"Star" was examined within a week. Unfortunately, there was a need for medication and the community organizations that assist in veterinary expenses, at that time, did not have the potential to invest in long term assistance. "Star's" family faced an unfortunate dilemma: should they euthanize their dog due to their inability to maintain the financial obligation to her medication, or should they surrender her to a shelter where she may face the same consequence? I encouraged them to give me a few days to see what I could do to assist them in finding an appropriate home and they agreed to give it a week. Simultaneously, I had continued my training with "Ruby's" family and had arranged for the neighbours to alternate yard time in order to prevent stimulating the problem or possibly triggering a seizure from the stress, until "Star's" condition could be managed successfully. Both parties were eager to work together on this and appreciated each other's efforts.

As a result of the teamwork, "Star's" family re-homed her with their relatives who could afford the expenses and they continued to be able to visit her, and my initial clients, "Ruby's" family, did not have any further concerns about her behaviour and realized they had a very socially healthy dog. "Star's" guardians did get another dog, and "Ruby" did not react to him in an unacceptable way. It was my pleasure to contribute to such a great outcome and have everyone satisfied in the end.

The teamwork required to reach this success was an exceptional situation and without everyone's involvement, including the neighbours and their families, the veterinary clinic, community organizations, and our training center, we would not have had this triumph. An undiagnosed condition in "Star" was discovered and received treatment, the neighbours resolved their anxieties with one another and "Ruby" was released from the prejudiced title of being "dog aggressive". I can only hope that all dogs experience the co-operation and teamwork these dogs needed to reach this conclusion.

My personal goals, if accepted for this scholarship are to learn more ways to encourage teamwork within our community between shelters, veterinary clinics and professional trainers. I consider "Ruby's" case study to be a prime example of the necessity to have co-operation and teamwork with every party involved, not just because of the financial circumstances, but most importantly to gather a complete and fair assessment of the situation.

Do you have a great case that would be interesting to write up? Please send it to us!

Each issue we will be giving away a SVBT gift pack to a lucky case study author.

For more information or tips on writing a case study, please email me! AmandaMiller@mfire.com

Quote of the Day

If a dog jumps in your lap, it is because he is fond of you; but if a cat does the same thing, it is because your lap is warmer.

–Alfred North Whitehead (1861 - 1947)

Behavior, from pg. 5

that it is increasing (Dodds 1995). A recent study (Hamilton et al 1998) compared total T4 and cTSH levels between a group of 21 bearded collies with no overt signs of hypothyroidism or aberrant behaviors (control group) with an experimental group of 22 bearded collies of similar age and sex distribution that exhibited problem behaviors but also showed no signs of hypothyroidism. Fifty-two dogs were excluded from the study because they exhibited signs of hypothyroidism, of these 34 had behavioral signs as well. Total T4 levels were significantly lower ($p=0.01$) in the experimental group when compared to the control group. The behaviors exhibited by the experimental group included noise and thunderstorm fears; fearful/anxious/shy behavior; separation anxiety; hyperactivity; poor concentration/learning; compulsive behaviors; mood swings, irritability and aggression – primarily territorial. We have seen more owner directed and dog-to-dog aggression, but otherwise behaviors seem similar to those we have found. Beaver and Haug (2003) also report owner directed aggression as a result of hypothyroidism.

We have seen a wide range of problem behaviors in dogs that are clinically hypothyroid or have suboptimal thyroid function. Some in this latter group appear completely healthy and others show minor problems such as seasonal allergy, ear infections, skin and coat disorders, etc. Many of these dogs responded to thyroid replacement on a twice-daily dosing regimen. In some cases, the dogs have been treated with a variety of other psychoactive drugs prior to presentation, as well as a number of other medical regimens. In general, such treatment was unsuccessful. While we know that thyroid can exert an effect on behavior by affecting levels of serotonin and norepinephrine, it would seem there are other mechanisms involved in producing some of its behavioral effect. Given that levels of endogenous glucocorticoids inhibit thyroid hormone production and release, as well as the conversion to the active form, it is not surprising that in dogs with borderline and suboptimal thyroid function, stress will induce a truly hypothyroid state that manifests initially in behavioral problems.

Our results suggest that thyroid replacement has an important role in the treatment of canine behavior, just as it does in human psychiatry. Therapeutic doses of levothyroxine are not harmful, provided any withdrawal of treatment is made gradually; wider use of such therapy could be beneficial to many dogs. In our opinion, it would be prudent to include a full thyroid panel in the work-up of most, if not all, behavioral cases.

Acknowledgement

The authors wish to thank Dr. Robert Keller, Chairman, Computer Sciences, Harvey Mudd College, Pomona, CA for his statistical analysis of the data.

References are available by contacting the author or the Editor of The Behavior Perspective.

Welcome New SVBT Members!

Cindy	Alvaro	RVT	Rocklin	CA
Wendy	Baldwin			
Rebecca	Benner		Johnston	RI
Renee	Blye	LVT	Saline	MI
Regina	Bohannon	RVT	Garland	TX
Samantha	Bornbach		Marshfield	WI
Mandy	Burkett	LVT	Yakima	WA
Elizabeth	Caldwell	RVT	Accokeek	MD
Kimberly	Camara	CVT	Attleboro	MA
Sheri	Church	LVT	Twin Lake	MI
Sandy	Conner		Tallahassee	FL
Jolie	Cordle		Pittsburg	CA
Britney	Croteau		Salem	NH
Rhea	Dodd		Lakewood	CO
Kathy	Eckstein		Noblesville	IN
Diane	Favier		St. Louis	MO
Monique	Feyrecilde	RVT	Auburn	WA
Joanna	Flower		Trinity	FL
Virgina	Gabert	CVT	Bernardston	MA
Rachel	Goossen	RVT	Raleigh	NC
Jan	Guz, L.	CVT	New Egypt	NJ
Melissa	Holmes	LVT	Farmingville	NY
Jamie	Householder	CVT	Saukville	WI
Tammy	Houseknect	CVT	Brooksville	FL
Michelle	Hurt, A.	LVT	Rochester	NY
Mike	Jackson	RVT	Indianapolis	IN
Renee	Jessen	RVT	Berkey	OH
Caroline	Johnson	CVT	North Branch	MN
Sharon	LaCourse	RVT	Toledo	OH
Maria	Loehner	LVT	Mineola	NY
Angela	Logsdaon	LVT	Redford	MI
Jessica	Mattheisen	CVT	Brainerd	MN
Sandy	Meeks		Garden Grove	CA
Megan	Miller	RVT	Pennington	NJ
Amy	Moore		Akron	OH
Mary Claire	Owen		Wayzata	MN
Kristi	Pahr		Maysville	GA
Kristi	Pahr		Maysville	GA
Casey	Palmer	LVT	Groton	MA
Carol	Posthumus		Clear Spring	MD
Kathy	Price	Cert 3	Brisbane Queensland,	Australia
Connie	Price	student	Stockton	CA
Carrie Ann	Resch	LVT	Macedon	NY
Tara	Rodgers		Seneca	SC
Laura	Rudolf		West Lafayette	IN
Christine	Shuman		Tampa	FL
Stacey	Skilling	LVT	Ravenna	MI
Laurie	Spain	CVT	Winnebago	IL
Haesun	Stoughtenger		Cambridge	MA
Kathy	Sullivan		Nashville	TN
Dawn	Tomasso	RVT	Denton	MD
Carol	Van Wart	RVT	Yukon	OK
Sarah	Walker	RVT	Newark	NJ
David	Watts		Pittsburg	CA

Call For Papers

Joint ACVB/AVSAB Paper Session
AVMA Annual Meeting, Washington D.C., July 16, 2007

The joint scientific veterinary behavior meeting of the American College of Veterinary Behaviorists (ACVB) and the American Veterinary Society of Animal Behavior (AVSAB) will be held on Monday, July 16, 2007 in conjunction with the AVMA meeting in Washington, D.C. Scientists and practitioners from all related disciplines are invited to submit abstracts for consideration. These may be original (unpublished) research results, case studies or scientific reviews. Actual presentations will be full spoken papers, spoken short communications and posters. Speakers of full, short, and poster presentations will receive complementary registration for the conference, including published proceedings.

SUBMISSION AND REVIEW PROCEDURE: All submissions should be completed on the Official Submission Form, accompanied by a Cover Sheet, (which may be down-loaded from the ACVB website: www.dacvb.org) and sent to Dr. Elizabeth Shull at the address on the Submission Form. You may contact Dr. Barbara Sherman Simpson (simpson.barbara@earthlink.net) with specific questions regarding the application process.

All submissions will be triple-reviewed, anonymously. Each submission will be evaluated according to its scientific merit, originality, and interest to the discipline. Please refer to the "Guidance for Submissions," below. Note that applicants for consideration of the ACVB Resident Award and the SVBT Award are required to submit a longer (2-3 page) and more detailed abstract than other applicants, whose abstracts are limited to one page.

Note: The Committee is not responsible for abstracts submitted incorrectly and therefore not reviewed.

In **all** cases, submissions are due **December 1, 2006** and authors of all submissions will be notified of the outcome of the review process by **January 30, 2007**. By **April 1, 2007**, authors of accepted abstracts must submit a longer paper (2-3 pages), suitable for publication in the proceedings. If not received by the due date of **April 1, 2007**, the authors risk withdrawal of the presentation by the Committee. In the case of work destined for journal publication elsewhere, authors may emphasize the basis of the topic with brief details of the methods and key experimental findings, in order to limit the risk of jeopardizing publication through prior publication. However, full experimental results should be presented at the meeting. Upon written request, assistance with English will be available to those for whom English is not their native language.

SVBT Award Information: The Society of Veterinary Behavior Technicians' (SVBT) third annual Award, in the amount of $1000, will be granted to the highest scoring abstract submitted by a veterinary technician. Individuals submitting abstracts for consideration ***must be professional members of the SVBT***. Abstracts for this award should be 2-3 pages in length. The deadlines provided above will apply to this award. To submit a paper, please go to: www.dacvb.org and follow the submissions and review procedures.

Society of SVBT Veterinary Behavior Technicians

Editor:
Amanda Eick-Miller, RVT
2544 Earl St.
Wooster, OH 44691
Phone: 330-263-2976
Email: amandamiller@mfire.com

Membership Information:
www.svbt.org

What's Inside This Month's *"The Behavior Perspective"*