



THE SPECIALIST CONNECTION

Don't sleep with a drip!

In 2014, Vetspecs instigated a new approach to the surgical treatment of canine urethral sphincter mechanism incompetence (USMI).

Welcome to the world of the Hydraulic Artificial Urethral Sphincter (HAUS)!

USMI is a condition which can seriously impact on the pet's ability to remain happily in the family unit. USMI is the most common cause of acquired urinary incontinence in the bitch and is second only to ectopic ureters as a congenital cause of incontinence in juvenile bitches. The aetiology of USMI is multifactorial and predominates in older, spayed, overweight, large breed bitches but can be seen in both sexes and in a variety of ages, breeds and in entire animals. Medical management of dogs diagnosed with USMI are life-long, can thus be associated with high costs and morbidities and are not consistently successful. Hence, surgical remedies for USMI should be considered for suitable candidates. The general aims of surgical treatments are

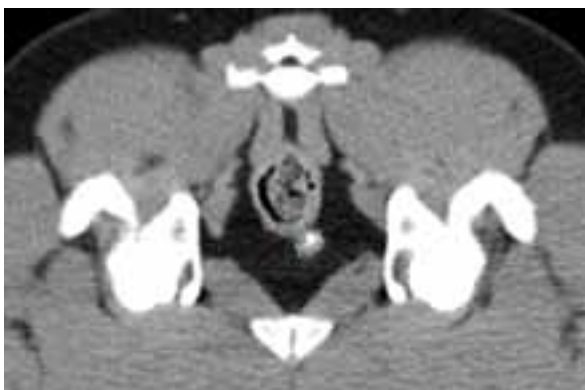
to increase urethral resistance, increase urethral length and or to move the bladder neck into an intra-abdominal position. A variety of surgical treatments have been used to treat USMI in the dog, including colposuspension, urethropexy, various urethroplasties, transpelvic slings, endoscopic peri-urethral bioimplant injections such as collagen, and prosthetic sphincter implantation.

Dr Chris Adin, with postgraduate experience from UC Davis, Florida and most recently Ohio Veterinary Schools, is credited with leading the campaign on the use of hydraulic occlusion devices to treat canine urinary incontinence. New Zealand's own Dr Alastair Coomer, (Veterinary Specialist Group Hospital, Auckland), trained under his tutelage and has been an encouraging force in bringing this procedure to our country.

So, how do they work? Hydraulic urethral occlusion employs a silicon cuff placed around the proximal urethral; in male dogs, they are placed caudal to the prostatic

urethra. The cuff is initially applied at its largest (loosest) circumference but, if necessary, it can be incrementally inflated post operatively via a subcutaneous injection port with variable amounts of saline to provide mechanical obstruction to urine outflow.

Previous techniques, such as colposuspension and collagen injections, depend on stretching or expanding soft tissues, respectively, to increase resistance to urine outflow. Soft tissues ultimately relax (the "face-lift" quandary) which means that many of these soft tissue procedures will lose their efficacy over time. Similarly, surgical correction for ureteral ectopia leaves approximately 50% of dogs incontinent due to ongoing USMI. Thus, surgical procedures may need to be repeated, augmented with another surgery (a "belt and braces" approach), and or assisted with a return to medications. In contrast, the obstruction to urinary outflow provided by the HAUS is mechanical and thus static. That is, its effect should last as long as the device is in place. >>>



CT image showing preoperative measurement of the urethral diameter (shown by the green marker).



Intraoperative measurement of the HAUS internal diameter.



Intraoperative assessment of the urethral diameter with moistened umbilical tape.



Intraoperative photograph demonstrating the hydraulic occluder, its tubing and the injection port placement.

Candidates for HAUS placement should have a comprehensive “work up”, like any other dysuria case, in order to correctly diagnose and eliminate other possible comorbidities which may significantly affect the treatment plan and prognosis, such as urinary tract infection (UTI), urolithiasis, ureteral ectopia, hydronephrosis or hydroureters. “Work up” means assessing the signalment and history, performing urinalysis, complete blood counts, serum

chemistry, microbiological culture of a cystocentesis sample and diagnostic imaging. Diagnostic imaging may include plain radiography followed by positive contrast intravenous urography and retrograde (vagino)urethrography. Contrast CT imaging is currently our imaging modality of choice, frequently followed by retrograde urethrography. Doppler ultrasonography can be utilised in these cases too. Regardless, the

imaging procedures allow assessment of the anatomical positioning of the genitourinary structures (kidneys, ureters, bladder, urethra, prostate/vagina) and, with ultrasound or contrast CT, we can measure the urethral diameter which helps us predict the likely HAUS size that will be needed intraoperatively. Whilst not routinely performed, cystourethroscopy and urethral pressure profilometry can be helpful additional tools, more typically the domain of large tertiary institutions.

Following surgery, patients are discharged home when it is confirmed that the dog can urinate. Any previously administered medications are stopped on the day of surgery, if not prior. Dogs, in the words of Dr Coomer, tend to be “profoundly continent” postoperatively; often a dramatic change to the preoperative situation. However, dogs may urinate more frequently in the immediate few weeks following surgery. This may be due to the presence of the HAUS around the urethra and due to the relative lack of cystic reserve volume; that is, the bladder needs some time to adapt to “the HAUS’s request” for it to be a better storage reservoir.

The port is not injected for at least 6 weeks post operatively. After this time, if required to improve the level of continence, small volumes (eg 0.1-0.2mls) of saline can be injected into the port via a specialised Huber needle, after aseptic preparation of the overlying skin.

Dr Milner has implanted occluders in three dogs since January 2014 and all dogs have responded well to the surgery. None have experienced any difficulty urinating and all have vastly improved continence scores. All are off oral medications and have normal activity levels. One dog, a female spayed 3 year old Labrador that had ectopic ureter surgery at the age of 6 months, was profoundly incontinent preoperatively. A HAUS was applied in January this year with instant and sustained improvement in her continence. However, she has experienced antimicrobial-responsive recurrent bacterial cystitis which we theorise is due to pre-existing alterations in her ureteral and urethral peristalsis and her increased bladder residual volume, which may be facilitating infection. Our second patient, a 7.5 year old male neutered Rottweiler, had surgery in mid-May and has had a significant improvement in his incontinence. He had been experiencing regular nocturia and bed wetting which has resolved post-HAUS placement. However, as he was experiencing infrequent and intermittent dripping every few days, we elected to

inject 0.1ml into his subcutaneous port 8 weeks post operatively. Response to this injection is not possible as it coincides with the time of writing. Our third patient, a 3 year old Hungarian Vizsla, had a HAUS placed at the end of May, after having failed to respond to long term medication with phenylpropanolamine and or estrogens. She had also had colposuspension surgery performed in the year prior to the HAUS surgery with an initial but not sustained improvement in her urinary incontinence. She became immediately continent following HAUS surgery and has been off all medications since.

Hydraulic urethral occluders appear to offer a new and highly successful option for the control of urinary incontinence in the dog. The single-procedure technique offers a medication-free and sustained control of incontinence in the dog. I would very much encourage pet owners to consider surgery for USMI-related urinary incontinence before getting exasperated with high medical bills and continual husbandry problems. The success rates are very good. Such improvement can make a significant difference to the ability of an animal to remain a happy part of the family.



Priming the injection port with sterile saline via the Huber needle.



The HAUS System courtesy of Norfolk Vet Products.



Postoperative radiograph documenting injection port position.

References:

- Long-term efficacy of a percutaneously adjustable hydraulic urethral sphincter for treatment of urinary incontinence in four dogs. Rose SA, Adin CA, Ellison GW, Sereda CW, Archer LL. Vet Surg. 2009 Aug;38(6):747-53.
- Use of a percutaneously controlled urethral hydraulic occluder for treatment of refractory urinary incontinence in 18 female dogs. Currao RL, Berent AC, Weisse C, Fox P. Vet Surg. 2013 May;42(4):440-7.
- Outcome after placement of an artificial urethral sphincter in 27 dogs. Reeves L, Adin C, McLoughlin M, Ham K, Chew D. Vet Surg. 2013 Jan;42(1):12-8
- Static hydraulic urethral sphincter for treatment of urethral sphincter mechanism incompetence in 11 dogs. Delisser PJ, Friend EJ, Chanoit GP, Parsons KJJ Small Anim Pract. 2012 Jun;53(6):338-43
- Urodynamic effects of a percutaneously controlled static hydraulic urethral sphincter in canine cadavers. Adin CA, Farese JP, Cross AR, Provitola MK, Davidson JS, Jankunas H. Am J Vet Res. 2004 Mar;65(3):283-8.

The right nutrition can make all the difference to your patients' mobility



Hill's Prescription Diet™ j/d™ Canine is clinically proven to help dogs walk, run and jump better in as little as 21 days.*



Nutrition is therapy. Talk to your clients today.



The cost of caring

By Libby Leader Cert VN

Working in a client and patient industry can take its toll. The cost of caring can lead to compassion fatigue.

Also known as 'burnout' or emotional and physical exhaustion, compassion fatigue is simply a change in a helper's ability to feel empathy for their patients, clients, co-workers and even loved ones.

In the veterinary profession, many of us are faced with upsetting cases, angry or upset clients and euthanasia on a daily basis. After work, our travel home can be full of tension. We can sit in traffic for hours and once we do reach home, most people plop down in front of the TV. Most of us likely put on the news which is frequently full of sad and worrying information. During such a day, we are dealing with an increasingly large amount of stressful

situations and experiences that can be overwhelming and, left unnoticed, this can spiral into depression.

In the 2006 New Zealand census, there were 1569 veterinarians and 1263 veterinary assistants registered. In another survey in 2013, veterinarians were voted the 8th most trusted profession. It's no wonder that there is pressure and stress that come with the job. This can be an emotionally draining profession to be in. We care about the animal and we care about the highly devoted pet owner and what they might be going through. Bad things happen to good animals and to good people and we take that onto our own shoulders.

When our warning signs for compassion fatigue go unnoticed and are left to



Remember to make time to have some fun.

fester, people can become withdrawn, depressed and even suicidal.

A paper in a recent issue of Veterinary Record by D J Bartram and D S Baldwin, finds that veterinary surgeons in the United Kingdom are four times as likely as the general public, and around twice as likely as other healthcare professionals, >>>



New Zealand's Clinical Suppliers

- New Zealand's leading full service supplier for the veterinary industry
- Family run for over 25 years
- Excellent, friendly, knowledgeable & hassle-free service
- Proud supporters of the Vetspecs Surgical Resident



New Zealand's Clinical Suppliers



www.svs.co.nz



Veterinary Tissue Bank Allograft products now available from Vetspecs

to die by suicide as opposed to other causes. No similar research has been done here, but the New Zealand Vet Council's Health Committee considers that the same risk factors exist in New Zealand. Veterinary science, by its very nature, can expose its practitioners to a greater number of stressors and hazards than those encountered by the rest of the community.

Recognising signs of compassion fatigue and depression in ourselves is the first step towards a healthier and happier life.

Signs can include:

- Exhaustion
- Reduced ability to feel empathy/sympathy
- Anger/irritability
- Increased use of drugs or alcohol
- Dread of working with certain clients, patients or even co-workers
- Diminished sense of enjoyment of career
- Heightened anxiety or irrational fears
- Hypersensitivity or insensitivity to emotional material
- Difficulty separating work and personal life
- Many sick days (run down)
- Impaired ability to make decisions, or to focus, leading to mistakes
- Insomnia
- Problems with intimacy
- Aches and pains of unknown cause

Once you have a better understanding of the signs and triggers of compassion fatigue you will be able to help yourself and others combat it.



Share time with loved ones.

Firstly, you need to set aside time in the week for you to do the things you love. I know I enjoy reading my book during my lunch break; I get to escape from the real world and see my favourite characters when I am also filling my belly! For you it could be putting your feet up and enjoying that glass of wine, heading out for a swim or a gym class or heading out with friends.

You then need to recognise the things that may set you off and what you can do to avoid them. A wise woman once told me that you should look at your moods like a traffic light. If you are green, you are happy and in the mood you should be. Red is anger or sadness and, in any situation, this is not the level you want to be at. Orange is the area where you may feel yourself starting to get irritated at little things. Getting back to a green mood is far easier from orange than it is from red, so noticing those signs is important. Then you can find the things that will bring you back to a green mood!

For example, if I am walking home from work, I am happy and green because I have finished for the day and I can look forward to my evening. As I continue walking, the wind picks up and is blowing strongly in my face; little by little I can feel my green happy energy turning to an orange. It starts to get colder and now I am annoyed I forgot my coat. Then it starts to rain and I am in the full blown red zone. By the time I get home, I am drenched and in a bad (red) mood so I am too mad to greet my pets with the love



Libby enjoying a silly moment at work as Cardboard Cyborg.

they deserve or cook the lovely dinner I had planned. So, I perceive that my night is ruined.

Knowing now that things like that can get on my nerves, I can look at solutions that can help me when I get in the orange zone to bring me back to green. If I leave work and get all the crawling traffic on the way home, it may be the sing-along party songs on the radio that bring me back to green. If I'm walking home, I could invest in some music too (or an umbrella in my backpack!) to calm me down.

Once you know your signs and tips to help yourself, you can help others when they may need some TLC. After a distressing case or day, it can be helpful if the team has a supportive debrief or a chat, over drinks and dinner snack if need be, to help minimise the negative impact that everyday life can create. Make time for yourself and others.

It is a career-long issue that is not often recognised or even talked about. What will you do to prevent it?

Reference:

'Veterinary surgeons and suicide: a structured review of possible influences on increased risk' appears in the Veterinary Record, March 27 2010 pp 388-397.



Vetspecs now offers veterinary finance.

Contact us for more information.



MY PAIN IS UNDER CONTROL SO I CAN BE THE FIRST AID

Dogs like "Boss" can operate at maximum capacity when PREVICOX® takes care of their joints. PREVICOX allows Boss to have more chance of a successful rescue in the most extreme conditions.

Ask your veterinarian how your best friend can get fast relief from the pain of osteoarthritis with PREVICOX; a non-steroidal anti-inflammatory drug (NSAID) designed for dogs.

Previcox®
firocoxib



Merial is a Sanofi company

Merial New Zealand Limited T/A Merial Ancare, Level 3, Merial Building, Osterley Way, Manukau, Auckland, 2241. ©PREVICOX is a registered trademark of Merial. Registered pursuant to the ACVM Act 1997, No. A9342. Restricted Veterinary Medicine; available for purchase and use only under and in compliance with a veterinary authorisation. ©Copyright 2013 Merial New Zealand Limited. All Rights Reserved. NZ-13-PRE-046.

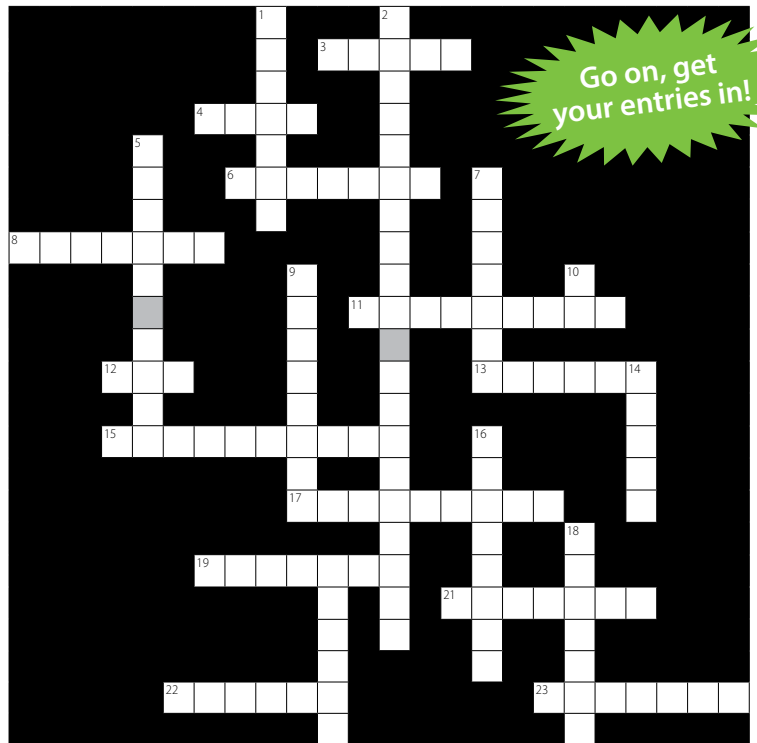
Crossword

ACROSS

3. Vetspecs has performed HAUS surgery on patients. (5)
4. Dr Chris is credited with leading the campaign on the use of hydraulic occlusion devices to treat canine urinary incontinence. (4)
6. Compassion fatigue may also be know as what? (7)
8. Compassion fatigue is a change in a person's ability to feel what? (7)
11. HAUS stands for Artificial Urethral Sphincter. (9)
12. The companion port is not injected for at least weeks post HAUS surgery. (3)
13. In a 2013 survey, veterinarians were voted the most trusted profession. (6)
15. The exciting HAUS procedure offers a dog-free control of urinary incontinence. (10)
17. USMI stands for urethralmechanism incompetence. (9)
19. Vetspecs now offers clients Finance. (7)
21. Merial Ancare has recently launched a new beef flavoured chewable tablet for fleas and ticks in dogs named (7)
22. SUBS stands for Subcutaneous Ureteral System and is now available for canine and feline ureteral obstructions. (6)
23. Which county in England shares it name with the company that supplies the HAUS system? (7)

DOWN

1. "Boss" can operate at capacity when he takes Previcox®. (7)
2. Dogs tend to be post HAUS surgery. (10, 9)
5. How many medals did NZ win in the recent commonwealth games? (5, 4)
7. Vetspecs has recently successfully performed ureteral pigtail stenting on a cat with multiple renal and ureteral stones. (7)
9. The month of August was named after which Roman Emperor? (9)
10. Henry ... Part 1 and The Tempest are the only Shakespeare plays that mention August. (2)
14. The subcutaneous companion port used in HAUS surgeries should only be injected with a needle. (5)



16. Veterinary Tissue Bank (VTB) allograft products are distributed in New Zealand by (8)
18. Which UK city recently hosted an international sporting event? (7)
20. Which 2014 month is the only one to start on a Friday? (7)

Fax, email or post your completed crossword to Vetspecs by Friday 12th of September 2014. All correct entries go into the draw to win a \$100 hamper, kindly supplied by SVS. Remember to include your name, clinic name and contact number so you can be notified. Winner will be drawn on Friday the 19th September 2014 and put on our facebook page.



Vetspecs team

Left to right: Brent Higgins, Helen Milner (Owner and Director), Philippa Burns, Aparna Tikekar, Kristina Boyd, Lauren Keenan, Becky Clarke, Katie Cambie, Libby Leader, and Damian Chase.



clinic: 90 Disraeli Street, Addington, Christchurch.
 telephone: (03) 341 6449
 facsimile: (03) 341 6450
 email: admin@vetspecs.co.nz
 website: www.vetspecs.co.nz

