UC Davis Makes New Advances in Veterinary Blood Purification

Most people are familiar with the process of hemodialysis—taking impure blood from one’s system, purifying it, and returning it to the body. That’s a very simple explanation of a highly complicated process. A new, state-of-the-art blood purification procedure—therapeutic plasma exchange (TPE)—is making headway in veterinary medicine, joining the ranks of hemodialysis and another method, hemoperfusion. TPE is an apheresis (removal of impurities from blood) treatment in which plasma contaminated with damaging (pathogenic) antibodies, toxins or abnormal proteins is separated from the patient’s flowing blood and exchanged with donor plasma that is returned to the patient to render the patient less susceptible to or free from immunologic attack or other pathologic processes.

Unlike hemodialysis or hemoperfusion (in which impurities are removed from intact blood), therapeutic apheresis separates the blood into its component fractions, and the pathogenic fraction is removed or specifically altered prior to return to the patient. The remainder of the (purified) blood is returned to the patient. The pathologic component is delivered to a waste bag and discarded.

TPE has been used for decades in human medicine to manage a variety of disorders. The indications for, and evidence-based effectiveness of, TPE for these conditions has been grouped into four categories, establishing TPE as: the standard of care (category I), having evidence-based effectiveness (category II), having inconclusive evidence (category III), or having little identified effect (category IV). These categories help clinicians decide whether to use TPE to treat specific disorders. Experience with the use of TPE in animals is limited to date, and it is difficult to predict effectiveness comparable to that achieved for similar diseases in people; however, this classification provides guidance for potential use of TPE to treat animal diseases when the current standard of care is ineffective.

The Hemodialysis and Blood Purification Service at the VMTH now has experience in the use of TPE to manage immune-mediated neurologic disorders (myasthenia gravis and polyradiculoneuropathy) and immune-mediated hemolytic anemia refractory to medical management. TPE has emerged as a viable and promising treatment option for dogs with these two life-threatening conditions. The role of TPE in several other immune-mediated, metabolic, or toxic conditions in animals awaits further investigation. UC Davis researchers and clinicians are hopeful that the broad TPE categorizations and successes seen in human healthcare can soon translate to veterinary medicine for the benefit of animals.

To date, TPE has been used on about a dozen dogs and one horse. The treatment on the horse, conducted in May, is (to our knowledge) the first known equine application of TPE in veterinary medicine.

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VMTH Helps Grieving Clients

Companion animals are seen as members of the family, and losing one of them can have a tremendous impact on those involved. Coping with the loss of a companion animal can be a devastating experience for an owner. Never is this truer than for those who have to make the compassionate and courageous decision to allow their companion to pass. Fortunately for VMTH clients, our veterinarians, client service representatives and students are specially trained to assist them through the process.

A portion of the SWM student curriculum, with lectures and labs led by experienced practitioners, is devoted to counseling clients through loss. Also, every year at the VMTH new resident retreat, lectures on client relations are given to educate the hospital’s newest veterinarians.

Recently, the Patton family from Rocklin, California brought their English bulldog, Sissy, into the Small Animal Clinic. Sissy was under significant distress, and the Pattons decided to let her go. “Her eyes relayed the desire to rest in peace,” states Brandy Patton. Dr. Yu Ueda, a first year resident in the Small Animal Emergency and Critical Care Service, took a special interest in helping them through this difficult decision. “Words will not describe the breadth of talent Dr. Ueda exhibited both in compassion and clinical capacity,” continues Patton. “He is going to do a lot of good in this world, and will be great as he progresses in practice.”

Soli Redfield, Client Services Coordinator in the Large Animal Clinic, has been taking courses in grief counseling through the American Institute of Health Care Professionals. Animal Clinic, has been taking courses in grief counseling through the American Institute of Health Care Professionals. After she completes the courses, she will be a certified Pet-Loss Grief Recovery Specialist. Recently, Soli assisted a client with the difficult decision to let her beloved horse, Sugar, rest. “Soli was compassionate, thoughtful and so present for us,” states Carla Odetto of Petaluma, California. “She had a stall with a big bucket of goodies for Sugar. Soli was just so incredibly kind. She told me she would personally see to it that Sugar’s passing was peaceful. This meant the world to me.”

Many of our clinicians and client service representatives follow up with condolences, often going above and beyond. The Small Animal Clinic makes ceramic paw imprints of patients who have lost a pet, and follow up by sending sympathy cards. Soli presented a special gift for Carla. “I received a box with her tail and mane hair,” continues Odetto. “It’s held together with a beautiful ribbon and in a pretty cloth bag. Soli also wrote me a beautiful, heartfelt note expressing her condolences and reassuring me that I made the right choice for Sugar. These acts of kindness were so comforting to me at a very emotional time and I am grateful. Thank you again for caring for my horses...they truly are like my family.”

– Carla Odetto

May 2013

VMTH VIEW

LEADING VETERINARY MEDICINE, ADDRESSING SOCIETAL NEEDS

WILLIAM R. PRITCHARD VETERINARY MEDICAL TEACHING HOSPITAL • UNIVERSITY OF CALIFORNIA, DAVIS
Field Services Makes “House Calls”

Providing a long-standing service to our local communities, the VMTH regularly provides on-site care for large animals in their stable, ranch or farm. The Equine Field Service mostly sees individual horses, while the Livestock Herd Health & Reproduction Service generally sees larger herds. Faculty and resident veterinarians in both Services provide scheduled and emergency on-farm care through a 24-hour mobile veterinary practice within a defined local area that stretches from Vacaville to West Sacramento to Capay.

The Equine Field Service provides preventive health care services such as routine vaccinations and dentistry, and is also able to address health problems involving all body systems in the field including ocular, respiratory and dermatologic problems. Lameness examinations, pre-purchase examinations, medical and reproductive evaluations, and minor surgeries, are among the many services offered. In addition, diagnostic procedures such as digital radiography, high resolution ultrasound, and dynamic endoscopy, can be performed in the field. Field Service veterinarians can also access more advanced diagnostic and specialized services by direct referral and transfer of cases to colleagues at the VMTH.

The Livestock Herd Health & Reproduction Service provides veterinary care to dairies and ranches, primarily seeing cattle, goats and sheep. These regularly scheduled visits provide routine preventive health services and advanced care for a variety of conditions. Services to ranchers include evaluation of reproduction, milk quality, infectious disease prevention and control practices, birthing management, nutrition and other health-related issues.

Providing outstanding client services support back at the hospital is Janette Barrango, a 35-year veteran of the VMTH. Janette handles all scheduling for Field Service and can answer most general questions about visits to farms and ranches.

“Farmers, ranchers and horse owners often care for up to hundreds of animals,” states Dr. Joe Watson, Equine Field Service faculty member. “It is far more efficient and convenient to bring the veterinary services to them rather than transport all those animals to the Large Animal Clinic. Our Field Services veterinary teams are devoted and well-equipped veterinary health care providers.”

Nominate an Employee for PIE Award

Many of you work with colleagues who go above and beyond in their duties. Did you know that you can recognize those efforts by submitting a nomination for a VMTH PIE (Positively Impacting Employees) Program Award? Any VMTH employee (at any level) or student can nominate a fellow VMTH employee (staff, faculty or house officer) for performing a job beyond expectations or recognize an individual or group who have a great attitude and impact the hospital in a positive way.

PIE nomination forms can be found in Infoshare or by emailing Judy Wall at jawall@ucdavis.edu. If you have any further questions, please contact any member of the PIE Committee: Rich Larson – rlarson@vmth.ucdavis.edu Delaina Matz – dlmatz@ucdavis.edu Charlote Porter – cporter@ucdavis.edu Judy Wall – jawall@ucdavis.edu

Congratulations to recent PIE winners: Dr. Kim Helmbold, Dr. David Maggs, Billy Brown, Vincent Doyle, Cameron Feser, Teri Guerrero, Clare Knightly, Matt Mazza and Barbara Schwarz.

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In this issue we look at a new review board structure being established to support clinical trials. As many of you know, clinical trials are the basis for groundbreaking discoveries regarding treatments that may change the face of veterinary and human medicine. We could never advance veterinary medicine if not for clinical trials that document the effectiveness of new procedures and medications. I am grateful to the members of our new clinical trials review board and look forward to seeing their progress. Next month, we’ll bring you information on the new clinical trials center.

Clinical Trials Review Board Completes Changes

The VMTH established the Clinical Trial Review Board (CTRB) several years ago to protect the welfare of client-owned animals recruited into clinical trials conducted under the auspices of the VMTH and help investigators design and execute their clinical trials. In addition to adding new members representing a breadth of specialties, this committee has recently undergone some exciting procedural and structural changes that will affect how, and by whom, protocols are reviewed.

In terms of structure, the CTRB recently recruited the following committee members: Drs. Rob Rehbuin (Chair), Karen Vernau, Claudia Sonder, Akinyi Nyako, Frank Verstraete, Nicola Pusterla and Bruno Pyepod. In addition, the committee also includes two ex officio members (Chrissy Kalepeski, PhD, SVM Clinical Trials Analyst and Dr. David Wilson, VMTH Director) and several consultants (Valerie Wiebe, PharmD, Dr. Matt Mellma, and campus veterinarian Dr. Victor Lukas).

With regard to procedural changes, initiation of a clinical trial in the past meant the submission and approval of two protocols—one for the CTRB and one for the campus Institutional Animal Care and Use Committee (IACUC)—but researchers were often confused as to which one was required. To simplify the process, the VMTH CTRB officially merged with the IACUC on May 1, 2013. Now, investigators need only submit a single protocol that will be reviewed by both committees.

Effective immediately, all new clinical trials should be submitted to the IACUC. Prior to submission, please remember to indicate that these are client-owned animals and attach the CTRB Owner Informed Consent Form (found on the IACUC website or in the Clinical Trials Resource Folder on CERE). If you currently have a CTRB-approved clinical trial but do not have IACUC approval, you will have a 1-year grace period to submit an IACUC protocol. If your protocol has CTRB and IACUC approval, you may simply amend the protocol by adding the existing approved client consent form. All currently approved CTRB trials will expire on April 30th, 2014.

Protocols, including amendments, can be submitted to the IACUC at any time. Once submitted, the best way to reduce the turn-around time for your protocol is to promptly respond to any follow-up questions.

Additional information regarding the VMTH CTRB will be available on the IACUC website (http://safetyservices.ucdavis.edu/ps/a/IACUC), as well as in the Clinical Trials Resources Folder on CERE. Please contact Dr. Rob Rehbuin (rehebuin@ucdavis.edu) if you have any questions about this change or require any specific guidance.
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A lot of new and exciting things are happening around the School of Veterinary Medicine. Many new faces are coming on board, and we hope all the people are taking on new roles and challenges. I am thrilled to see the enthusiasm on your faces and in your voices as you contemplate these new opportunities. The next few years here hold a great deal of promise for the VMTH and those who work here. I look forward to helping you all achieve individual and collective success.

Regards,

Dr. W. David Wilson, BVMS, MS
Director, William R. Pritchard VMTH

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