



VIRGINIA VETERINARY NOTES

VIRGINIA-MARYLAND REGIONAL COLLEGE OF VETERINARY MEDICINE

January - March 1996

No. 78

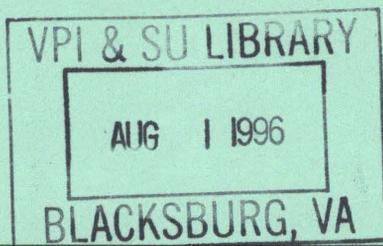
VIRGINIA VETERINARY NOTES CHANGE IN FOCUS AND FUNDING

The Virginia Veterinary Notes has previously been a publication funded in part by the Virginia Cooperative Extension Service. With funding reductions, the College has taken on the sponsorship of this publication on a quarterly basis and will emphasize information and activities of the Veterinary Teaching Hospital and CVM Outreach and Extended Education in addition to providing updated clinical information. An increased contribution by the faculty will be emphasized. Additionally, we want to publically recognize those who participate in our continuing education short courses by publishing names of participants in our programs. Finally, we will highlight the activities of the Veterinary Teaching Hospital, its faculty, staff, and our students, all of whom are the service support team to our referring veterinarians and our clients.

As Hospital Director, I will contribute information which will support our delivery of services to you and your clients. Of particular note recently is the establishment of Production Management Medicine's Equine Field Services and the new Small Animal Intensive Care Unit. The Equine Field Services unit was established within PMM to provide a more consistent delivery of equine services by those faculty in PMM with special equine emphasis. The construction of the new Small Animal Intensive Care Unit resulted as the critical need for expanded space and equipment developed over the past few years. It is a "showcase" area of our hospital and we encourage your visit to see it.

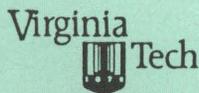
As the Teaching Hospital continues to grow, so grows the costs of doing business and the potential decline in direct communications and immediate access for elective and nonurgent medical and surgical care. We desire to be your referral center and to provide a sensitive, service-oriented hospital to meet your referral needs while teaching our fourth-year veterinary students, the preclinical students, and maintaining a high profile in scholarly activity and outreach. I have made a commitment and concentrated effort to respond to the input which I receive related to our services. The growth of our clinical program has brought residency training opportunities in ophthalmology, neurology, radiology, pathology, additional positions in production management medicine, large animal medicine, large animal surgery, and the continued maturation of our small animal medicine and small animal surgery residencies. These specialty training programs are a strength of our hospital and college and we are proud to expand our abilities to serve to you simultaneously.

Be reminded that the college and hospital will provide an "open house" on Saturday, April 20, 1996 from 10:00 o'clock a.m. until 4:00 o'clock p.m. We invite your participation in that event.



Robert A. Martin

Robert A. Martin, DVM, Hospital Director



VIRGINIA POLYTECHNIC INSTITUTE
AND STATE UNIVERSITY

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VIRGINIA STATE UNIVERSITY

DISEASE CONDITIONS OF CANINE ANAL SACS

The specific cause of impaction and sacculitis is unknown. Possible predisposing factors include chronic diarrhea, glandular hypersecretion associated with general seborrhea and poor muscle tone in small and obese dogs. Prolonged retention of secretion in the sacs may be the initiating factor. Other diseases such as vaginitis, flea allergy, atopy, proctitis, parasites, and perianal fistulae can lead to similar signs.

The color and odor of anal sac secretions are relatively constant across repeated samples from the same donors over a period of three weeks, but large differences may exist between the secretions of different animals. The color of the contents of the undiseased anal sacs has been described as brownish, brown, pale yellow-brown, slightly yellow or grayish brown. The descriptions of the consistency of the anal sac secretion of healthy dogs show a similar variability, i.e., serous, somewhat viscid and slightly granular, water containing small flecks of solid matter, mucous and pasty or clear. According to others, granular material is abnormal.

Anal sac impaction is defined as an enlargement of the anal sac due to retention of secretion without signs of inflammation. Anal sacculitis is characterized by enlargement and inflammation of the anal sac. Sacculitis is characterized by a thin greenish or creamy yellow secretion sometimes flecked with blood. Microscopic examination of smears of the secretion reveals high numbers of polymorphonuclear leukocytes and numerous bacteria. Aerobic and anaerobic cultures of the secretion should be carried out. The interpretation of the culture results is, however, difficult as anal sac content is not normally sterile. Many different bacteria, e.g. *C. welchii* (in 100% of dogs), *Pseudomonas* species (100%), diphtheroids (20%), staphylococci (40%), *S. fecalis* (100%), *E. coli* (90%), and *Proteus* (80%) have been cultured from the anal sac secretions of dogs with suspected sacculitis. Anal sac abscesses are characterized by pyrexia and an inflamed and often alopecic area over the sac. An abscess is usually accompanied by swelling and pain. As the infection progresses, the animals may be presented with a discharging fistula following spontaneous rupture of the sac.

Anal sac impaction is treated by manual evacuation of the anal sacs. This should be performed as atraumatically as possible. When sacculitis is present, the sacs are carefully emptied as described for anal sac impaction. This is often painful and care must be taken. After this, the sacs are rinsed with saline solution. In sacculitis, resolution of the inflammation is facilitated by installing an antibiotic solution in the sacs. *In vitro*, chloramphenicol exhibited the widest range of effectiveness. Sulfadimidine gave good results *in vivo* though *in vitro* the bacteria seemed to be resistant. Ampicillin, chloramphenicol or streptomycin have reportedly been effective. Antibiotic-steroid ointments have been advised. Often intramammary or otic preparations are used for local treatment as they can easily be installed in the sacs through the ducts, but antibiotics can also be installed in the sac through a lacrimal needle. Parenteral treatment is only indicated when the dog has fever. In anal sac abscesses, the use of systemic antibiotics is always advised. Hot packs are useful in bringing the abscess to a point which it can be opened. When the abscess is open, it can be irrigated with a mild disinfectant solution, and drained. The installation of antibiotic ointment in the abscess cavity has been advised. The application should preferably take place through the duct in order to make sure that this remains unobstructed. Surgical removal of the anal sacs is often advised in recurrent anal sac disease. --Abstracted from van Duijkeren, E. J. of *Small Anim. Prac.* 36 (1995), p. 12-16, as reported in *Vet Med.* Vol. 1, Issue 6, Nov. 1995, Iowa State University, Ames, IA.

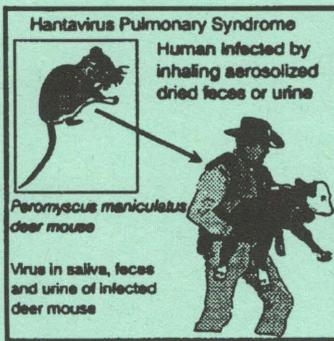
THE INHERITANCE OF OSTEOCHONDRITIS DISSECANS AND FRAGMENTED CORONOID PROCESS OF THE ELBOW JOINT IN LABRADOR RETRIEVERS

Osteochondritis Dissecans (OCD) and fragmented coronoid process (FCP) of the elbow are significant causes of forelimb lameness in dogs. Five matings between dogs bilaterally affected with Osteochondritis Dissecans and fragmented coronoid processes resulted in a distribution of lesions in the elbows of the offspring that indicated the diseases were inherited independently as polygenic traits. Dogs producing offspring with OCD, FCP, or both should not be bred. --George A. Padgett, et al., *JAAHA*, Vol. 31, No. 4, July/August 1995, pg. 274, as reported in *Florida Veterinary Scene*, Vol. 4, No. 8, Sept. 1995, University of Florida, Gainesville, FL.

HANTAVIRUS BROCHURE

A new brochure entitled, "Prevent Hantavirus Pulmonary Syndrome" has been prepared by the Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, Georgia. The six-panel brochure is directed toward tourists, campers, and hikers, and is written in clear, non-technical terms for use by the public.

The brochure describes a hantavirus pulmonary syndrome (HPS) in humans as "a serious, often deadly, respiratory disease that has been found mostly in rural areas of the western United States." The deer mouse is the primary hantavirus carrier. This rodent or related species are found throughout the United States. Since the types of mice that carry the virus are difficult to identify, all wild rodents should be considered potentially infectious. In the Southeast, cotton rats are known to carry hantavirus. Hantavirus is spread to people when they breath air contaminated with rodent urine, saliva, or feces, or touch their mouth or nose after handling contaminated materials. A rodent's bite can also spread the virus. The virus, which is able to survive in dirt or dust, can be killed by most household disinfectants, such as chlorine bleach or alcohol.



Symptoms of HPS usually appear within 2 weeks after infection, but the time can range from 3 days to 6 weeks. First symptoms are general and flu-like: fever (101-104°F); headache, abdominal, joint, and lower back pain; and sometimes nausea and vomiting. The primary symptom is difficult breathing caused by fluid build-up in the lungs. Persons who develop such symptoms after direct or indirect exposure to rodents should contact their doctor or public health clinic immediately and be sure to mention exposure to rodents. Since no cure or vaccine is available against hantavirus infection, the sooner medical treatment is sought, the better the chance of recovery. HPS is considered "a rare disease, and most tourists are not at increased risk for hantavirus infection."

The following precautions are offered to minimize the risk of hantavirus infections:

- Before occupying abandoned or unused cabins, open them up to air out. Inspect for rodents and do not use cabins if you find signs of rodent infestation.
- If you sleep outdoors, check potential campsites for rodent droppings and burrows.
- Do not disturb rodents, burrows, or dens.
- Avoid sleeping near woodpiles or garbage areas that may be frequented by rodents.
- Avoid sleeping on bare ground; use a mat or elevated cot if available.
- Store foods in rodent-proof containers and promptly discard, bury, or burn all garbage.

For more information about hantaviruses, including the availability of the brochure for public distribution, contact the CDC 1-800-535-9929. --*Veterinary News, The Pennsylvania State University Cooperative Extension, August 1995, as reported in Animal Health Beat, Volume 11, Issue 9, September 1995, University of Nevada - Reno.*

RABBIT MEDICINE

An excellent series of three articles on biologic characteristics of rabbits, their management, and the medical and surgical problems most commonly seen by veterinarians has recently been published in *Veterinary Medicine*, April 1995, pp 338-380. Also included is a rabbit formulary listing anti-infective drugs, anesthetics and related drugs, and miscellaneous drugs used in rabbits. If you treat rabbits in your practice, you need this peer-reviewed, up-to-date information. Reprints from *Veterinary Medicine* may be requested by calling (800) 255-6864, (913) 492-4300 or sending the request via fax to (913) 492-4157. --*Source: Veterinary Quarterly Review, April/June 1995, as reported in Veterinary Newsletter, No. 313, August 1995, University of Georgia, Athens, GA.*

NOT EVERYONE HAS FALLEN FOR FERRETS

The tens of thousands of happy ferret lovers may not want to hear about it, but leading professional organizations are not happy with ferrets as companion animals. Recently the National Association of State Public Health Veterinarians joined with the Council of State and Territorial Epidemiologists to issue a statement on why ferrets cannot be recommended as household pets. First, there are alarming reports of serious injuries inflicted by ferrets on sleeping infants and young children. The statement admits that there is no hard data on the actual number of these injuries, but hundreds of reports have accumulated so far.

A tendency toward aggression may exist in some lines of ferrets, but this too requires further study. According to Suzanne R. Jenkins, VMD, MPH, of the Virginia Department of Health, until such studies are available, it is prudent not to have a ferret in a household with infants or small children.

Rabies in ferrets is a complex issue. In 1990, a licensed rabies vaccine for ferrets became available for the first time. However, even a vaccinated ferret can have rabies. Furthermore, unlike the situation in dogs and cats, where the period of viral shedding in the animal's saliva is known, the time between infection with rabies and the actual appearance of signs of disease in ferrets is unknown. Because of this, the United States Department of Agriculture, in approving the ferret vaccine, stated that vaccinated ferrets who bite humans may have to be killed and tested for rabies infection so that a person bitten by a rabid ferret can be treated to prevent the disease from developing.

The joint statement by the two health organizations recommends that these risks of ferret ownership be made known to the general public, particularly potential owners with small children. The statement also calls for large studies to identify risk factors for ferret bites as well as further studies to establish the period of rabies virus shedding in ferrets prior to the onset of definitive signs of rabies infection.

The full report is available from Dr. Jenkins at the Virginia Department of Health, Office of Epidemiology, Suite 113, PO Box 2448, Richmond, VA 23218. --*Nebraska Veterinary and Biomedical Sciences Newsletter, University of Nebraska-Lincoln Cooperative Extension, Vol. 24, No. 3, March 1995.*

CANINE BLOAT LATEST FINDINGS

1. Frequency of bloat among all dogs admitted to the different hospitals ranged from 2.9 to 6.8 per 1,000 dogs.
2. A total of 28.6% of the dogs with gastric dilation alone and 33.3% of those with dilatation with volvulus died in the hospital.
3. Bloat risk increased with age. Dogs 7 years and older were at least twice as likely to have bloat as dogs 2 to 4 years old.
4. Purebred dogs were three times as likely to have bloat as mixed-breed dogs.
5. The six more common breeds with the highest risk of bloat are Great Dane, Weimaraner, Saint Bernard, Gordon Setter, Irish Setter, and standard Poodle. Less common breeds with greatly increased risk included: Irish wolfhound, borzoi, bloodhound, mastiff, akita, and bullmastiff.
6. Increasing expected adult weight of the breed, based on breed standards, was a significant risk factor. However, there were great differences in the risk of bloat among breeds with similar expected weight. For example, among the more common breeds, the Basset Hound has the seventh highest risk overall, although it was in the lowest weight group.

--*Veterinary News, The Pennsylvania State University Cooperative Extension, August 1995, as reported in Animal Health Beat, Volume 11, Issue 9, September 1995, University of Nevada - Reno.*

ELECTRONIC SHOCK COLLARS: ARE THEY WORTH THE RISKS?

In general, a shock collar may be an effective training tool to solve certain kinds of behavioral problems. It should be considered only after all other attempts at behavioral change have been undertaken. As a behaviorist, the author takes a "middle of the road" attitude when recommending use of a shock collar. For some situations, the usage of a shock collar would be prudent when it becomes apparent that a problem cannot be solved through conventional methods of behavioral modification. In other situations, its usage would be a mistake. Shock collars are simply tools. If used correctly, benefits may result. Unfortunately, this particular tool has the potential to be easily misused and abused. The bottom line is that training situations differ, and the pressures facing owners differ from case to case. It is up to the owner, along with counsel from the veterinarian and behaviorist, to decide if the benefits outweigh the risks in the use of this equipment. --*Veterinary Notes II, North Dakota State University Extension Service, Vol. 4, No. 6, June, 1995.*

AN EMERGING CONCERN ON IONOPHORE USE

The FDA has recently reiterated its concerns about the use of ionophores (monensin, lasalocid and others) in lactating dairy cattle rations. These feed additives have been shown to increase feed efficiency by modifying the pattern of rumen fermentation. These feed additives are labeled for use in beef cattle and replacement heifers. Monensin and lasalocid are not labeled for and cannot be legally used in rations for lactating dairy cattle. Currently the FDA does not have adequate data on which to base an approval for the use of ionophore drugs for milk production or other uses in lactating dairy cattle. Thus, the FDA considers the use of ionophores in lactating dairy cattle rations to be illegal drug use. --*Dr. Dwight Bruno, USDA/Dept. of Agriculture & Markets, Albany, NY, Dr. Larry Thompson, Veterinary Toxicologist, Cornell University, as reported in Veterinary Update, Cornell Veterinary Extension, November 1995.*

FAX BUYERS BEWARE

Beware of fax manufacturers' claims of 6-seconds-per-page transmission speeds on machines equipped with 14.4 Kbps modems, says the latest installment of The Plain Paper Fax Guide from What to Buy for Business, a publisher of office-equipment consumer guides. The publication contends that test reports show that the actual times are greater than the advertised figures.

The reason, according to the publication, is that vendors overlook the "handshakes" at the beginning and end of each transmission and between all pages. As a result, transmission and between all pages. As a result, transmission time for a standard page is actually 24 seconds of "billable phone time" when two 14.4 Kbps-equipped fax machines are communicating. Beside dissecting transmission speeds, the guide provides specifications, pricing, and feature information on plain-paper models from 28 fax vendors. The guide also offers "Best Buy" recommendations in a range of price categories. The guide costs \$23 (plus \$3 for shipping) and can be ordered by calling (800) 247-2185. --*Office Systems 95, July, as reported in Florida Veterinary Scene, Vol. 4, No. 8, Sept. 1995, University of Florida, Gainesville, FL.*

Per capita meat consumption retain weight - Chicken has led beef in retail weight per capita consumption for the 4th year in a row. However, 1994 marked the first year since 1985 that beef showed any increase in consumption and it increased again this year. The 1995 per capita meat consumption is as follows: Chicken 75.3 pounds, Turkey 18.8 pounds, and total poultry 94.1 pounds. Beef 68.4 pounds, Veal 1.0 pounds, Pork 53.8 pounds, Lamb 1.1 pounds, and total red meat 124.3 pounds. Fish and Shellfish consumption was 15.0 pounds. The total red meat, poultry, fish, and shellfish consumption was 233.4 pounds, which is an all time high in the US.

Consumer per capita spending for beef, pork, chicken - The amount of dollars spent in the US on beef in 1994 was nearly two times that of chicken or pork and stood at \$191.50. Total spent for pork was \$105.36 and for chicken, \$104.24. The total expenditure for beef, pork, and chicken on a per capita basis was \$401.10. --*As reported in Livestock Update, Sept. 1995, VPI&SU, Blacksburg, VA.*

CE SERIES

The College of Veterinary Medicine at Virginia Tech offers a variety of continuing education programs for veterinarians and veterinary technicians. The emphasis for these programs is hands-on participation under the direct supervision of faculty specialists. No continuing education better meets this goal than the College's CE Series in a variety of disciplines. Series enrollments are limited so as to ensure one-on-one instruction during the six monthly sessions.

Recent programs included the following practitioners:

Clin Path Series '95

Michael Brown, Elizabethton, TN
 Kathy Haywood, Troy, NC
 Dennis Heagren, Durham, NC
 Terry Jensen, Daleville, VA
 Sandra Justis, Concord, NC
 Ian MacFawn, LaVale, MD
 Jack Martin, Winter Park, FL
 Ron McKinlay, Madison, NC
 Margaret Rucker, Lebanon, VA
 Laurie Scotton, Greensboro, NC

Soft Tissue Surgery Series '95

Kelly Burdette, Christiansburg, VA
 Douglas Chilcoat, Westminster, MD
 Jerry Hinn, Alexandria, VA
 Nancy Kicherer, Madison, VA
 Carole Mask, Abingdon, VA
 Garry Stutesman, Hickory, NC
 Page VanSickle, Springfield, VA
 James Woodward, Springfield, VA

Head & Neck Surgery/Dentistry Series '95

Debra Call, Radford, VA
 John Isaacs, Greensboro, NC
 Jenny Larsen, Richmond, VA
 Meredith McGrath, Floyd, VA
 Joseph Schmitt, Winchester, VA
 Daniel Woodworth, Waynesboro, VA

Problem Solving Series '95

Terry Allen, Alexandria, VA
 Lyn Averitt, Toano, VA
 Christopher Grover, Keene, VA
 Carol Hood, Newport, TN
 Norma Inqin, Ranson, WV
 A.O. Jones, Williamsburg, VA
 Ian MacFawn, LaVale, MD
 Rebecca Metz, Barboursville, WV
 William Porter, Spencer, WV
 Andrew Walther, Prince Frederick, MD

VMRCVM Series faculty instructors include:

Dr. Bernard Feldman (Clin Path)
 Dr. Dru Forrester (Problem Solving)
 Dr. Michael Leib (Problem Solving)
 Dr. Karen Dyer (Problem Solving)
 Dr. William E. Monroe (Problem Solving)

Dr. Spencer Johnston (Surgery Series)
 Dr. Robert Martin (Surgery Series)
 Dr. Mark Smith (Surgery Series)
 Dr. Don Waldron (Surgery Series)

FELINE PRACTICE

Feline Cesarean Section Practice Tip

In a pregnant queen with unknown breeding dates, it is easy to misinterpret premature or false labor signs as the true onset of labor. If a C-section is performed on such a pregnant queen and it is discovered after removal of one or more fetal kitten(s) and placenta(s) that the litter is premature, the hysterotomy and laparotomy incisions may be closed and the patient has a reasonable chance to carry the remaining kittens to term and deliver them normally. --From AM. James and G.D. Norsworthy. "Partial cesarean section followed by normal birth in a queen." *Veterinary Medicine, August 1995, pp. 750-753, as reported in Veterinary Quarterly Review, Vol. 11, No. 3, July-Sept., 1995, as reported in Teas A&M University.*

THOUGHT FOR THE MONTH

Personal efficiency is creative self-management.

CONTINUING EDUCATION OPPORTUNITIES - WINTER-SPRING 1996

Date		Location	Contact Hours
Jan. 27	Echocardiography	Blacksburg	6
Feb. 9-10	Equine Reproduction	Blacksburg	12
March 15-16	Orthopedic Surgery of the Canine Forelimb	Blacksburg	10
April 12-13	Gastrointestinal Endoscopy	Blacksburg	10
April 26-27	Diagnostic Ultrasonography	Blacksburg	10
May 3-4	Large Animal Ultrasonography	Blacksburg	12
May 17-18	Freshwater Fish Problems and Diseases	Blacksburg	10
CE Series			
Jan-June	Orthopedic Surgery	Blacksburg	30
Jan-June	Large Animal Problem Solving	Blacksburg	30
March-Sept	Head and Neck Surgery/Dentistry	Blacksburg	40

Note: The Series meet once each month for six months for an in-depth, hands-on CE experience. Enrollment is limited to 6-8 veterinarians per Series. The weekend CE short courses are limited enrollment and feature hands-on instruction.

For further information, please contact:

Dr. J.M. Bowen, VMRCVM - Virginia Tech, Blacksburg, VA 24061
(540) 231-7388, FAX (540) 231-7367

BOVINE PRACTITIONERS MEETING

The annual Maryland Conference for Bovine Practitioners will be held March 28-29, 1996, at the Holiday Inn, Frederick, MD. The conference will cover a variety of topics including a four-hour workshop on assessing critical financial and production success factors for dairy farms.

For more information and registration, contact Dr. Douglas Carmel, VMRCVM, University of Maryland, College Park, MD 20742. Phone (301) 935-6083, ext. 118, FAX (301) 935-6079.

NEWSLETTER TO QUARTERLY DISTRIBUTION

Funding for Cooperative Extension in Virginia has been steadily and relentlessly cut over the past four years. As of 1995, the publications budget for newsletters (such as this one) has simply disappeared.

In an attempt to keep publishing Virginia Veterinary Notes, Dean Eyre, College of Veterinary Medicine at Virginia Tech, has agreed to underwrite publishing costs on a limited basis. No November-December 1995 issue was published and we start 1996 on an optimistic basis as a quarterly newsletter. Further changes will undoubtedly be made as it is now a College-sponsored publication and not an Extension newsletter.

Your continued interest and support are important to us, and your constructive comments are always welcome. --*Kent Roberts, DVM, VMRCVM, Virginia Tech, Blacksburg, VA.*

P.S. If you thought I retired, you're right. I just enjoy being active, and hopefully, useful. Dean Eyre has been kind in allowing me to continue certain activities at the College.

Virginia-Maryland Regional College of Veterinary Medicine Extension Staff:

Dr. J.M. Bowen	-	Extension Specialist - Equine
Dr. C.T. Larsen	-	Extension Specialist - Avians
Dr. K.C. Roberts	-	Extension Specialist - Companion Animals
Dr. W. Dee Whittier	-	Extension Specialist - Cattle

K.C. Roberts, Editor

Maura M. Wood, Production Manager of VIRGINIA VETERINARY NOTES

**COOPERATIVE EXTENSION SERVICE
U.S. DEPARTMENT OF AGRICULTURE
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