VIRGINIA COOPERATIVE EXTENSION SERVICE

EXTENSION DIVISION - VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY - BLACKSBURG, VIRGINIA 24061

VIRGINIA-MARYLAND
REGIONAL COLLEGE
OF
VETERINARY MEDICINE

VIRGINIA VETERINARY NOTES

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WHAT'S INSIDE!

K C Roberts

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VIRGINIA-MARYLAND REGIONAL COLLEGE OF VETERINARY MEDICINE UPDATE

The following veterinarians have joined the college faculty in recent weeks:

John R. August, B. Vet., Med., M.S.--Coordinator of Small Animal Medicine for the Veterinary Medicial Teaching Hospital
Richard L. Bradley, D.V.M., M.S.--staff surgeon
Brian D. Perry, V.B.M.&S., M.S., D.T.V.M., M.R.C.V.S.--epidemiology
Peter Eaton, B.V.M.&S., Ph.D., M.R.C.V.S.--lab animal medicine
John B. Madison, V.M.D., M.S.--field clinician
Geoffrey K. Saunders, D.V.M., M.S.--pathology
Robert E. Holland, D.V.M.--large animal clinician
Jeff R. Wilcke, D.V.M., M.S.--clinical pharmacology

The Marion duPont Scott Equine Medical Center at Leesburg, Virginia, is progressing rapidly. Construction of this facility, using a four million dollar gift from Mrs. Marion duPont Scott, should be completed in the fall of 1983.

Construction is finished on the 8,700 square feet addition to Phase I, the college's interim clinical facility. Construction is proceeding on schedule for the 64,500 square foot, eight million dollar Phase II building which will house classrooms; instruction and research laboratories; faculty, administrative, and business offices; and library, word processing, and media services. Phase II is slated for completion in the summer of 1983.

Eighty students have been selected for the class of 1986. Fifty are Virginia residents while thirty are Maryland residents. They begin their veterinary education on September 17, joining 73 second year students (class of 1985) and 63 third year students (class of 1984).

The capital campaign to raise money for the construction of Phase III has begun. The citizen campaign leaders have been named--Daniel G. Van Clief, Arthur W. Arundel, and W. Alexander Stuart, Jr.--and the campaign's organization is being formalized.--*Kent C. Roberts, D.V.M., Virginia-Maryland Regional College of Veterinary Medicine, Virginia Tech, Blacksburg, VA.*

IBR VACCINE STUDY

Intramuscular injections of modified live infectious Bovine Rhinotracheitis virus can be just as effective in providing protection as intranasal vaccines. In an experimental study conducted in Philips Roxane Laboratories, 35 healthy cattle were divided into seven groups (six experimental and one control). One group was vaccinated seven days prior to exposure, another three days before, another two days, another one day and the last group on the same day as exposure. The control group was not vaccinated. All six groups were then exposed to the seventh group, which had been infected earlier and was actively shedding high concentrations of IBR virus.

When weight gain, clinical signs, white blood cell pattern and temperature changes were evaluated, it was found that the onset of protection occurred rapidly after vaccination, with full effectiveness within 48 hours. Those calves vaccinated seven, three, and two days prior to exposure were protected from the disease even

before antibodies stimulated by the vaccine could be detected. Calves vaccinated one day before and the same day as exposure showed only slight to moderate signs of infection. As expected, the non-vaccinated control calves showed severe clinical signs and lost weight.--*AABP Newsletter, May 1981, as reported in Veterinary Medicine Newsletter, University of Florida, July 1982.*

PRACTICE TIPS

Vaginal cytology is not indicated in the majority of dog matings. It is best used in the bitch that won't stand for the male at any time or the bitch that is to be shipped for breeding. It cannot be used to give an accurate indication of when ovulation occurs.

For best results, breed dogs three times over a five day period on days one, three, and five of standing heat. This may help increase litter size as well as overcome estrus idiosyncracies.

False pregnancy (pseudocyesis) is probably a normal phenomonen in the bitch. It occurs six to twelve weeks after estrus and is best not treated.--*Dr. Shirley D. Johnston, College of Veterinary Medicine, University of Minnesota, DC Academy of Veterinary Medicine, May 1982.*

THOUGHT FOR THE MONTH

The success of democracy comes not from its leaders doing extraordinary things, but from its citizens doing ordinary things extraordinarily well.--*John Gardner.*

PYODERMA--SYSTEMIC ANTIBIOTIC THERAPY

The secret in effective treatment of pyodermas using systemic antibiotics is to choose the proper antibiotic and the proper dosage. It is best to select an antibiotic with a spectrum effective against S. aureus and not inactivated by penicillinase.

Experience would indicate that the most effective pyoderma drugs are erythromycin, lincomycin, and oxacillin. Erythromycin and lincomycin have an approximately 80% chance of effectiveness while oxacillin has a 98% chance. Oxacillin is one of the best staph drugs available today but is expensive.

Other antibiotics which have a reasonable chance of effectiveness are cephalexin (Keflex), chloramphenicol, and Tribrissen.

Dosage recommendations:

Erythromycin	4 1/2 - 6 1/2 mg/lb TID	best given with food
available in 125 mg, 250 mg, 500 mg } tablets and pediatric elixer		minature poodles, Schnauzers and dogs with chronic vomiting shouldn't receive this drug
Lincomycin	10 mg/lb BID	same spectrum as Erythromycin--if one doesn't work don't try the other one
available in 250 mg, 500 mg } parentual soln and oral syrup		
Oxacillin	5 mg/lb TID	excellent drug--expensive
available in 250 mg, 500 mg } capsules oral soln and parenteral vials		

NOTE: Treat five days beyond clinical cure in superficial pyodermas.
Treat seven to ten days beyond clinical cure in deep pyodermas.--*Dr. Peter Ihrke; College of Veterinary Medicine; Davis, California; presented at DC Academy; April 1982.*

PHOTOSENSITIZATION IN HORSES

In horses, the type of photosensitization observed most often seems to be what horsemen commonly refer to as "dew poisoning." The condition is frequently associated with the ingestion of alsike or ladino clover. Usually, the horse's unpigmented areas or white markings are involved. At first, photosensitization may look like a severe sunburn on the head or body. Later, large areas of skin may slough and become infected with various bacteria. When the leg areas are involved, the condition may resemble "scratches." Depending on the area of the country, habronema lesions or secondary mycotic lesions may result. Adults are affected more frequently than young horses.

Antihistamines, corticosteroids, and antibiotics may all be indicated. Shredded paper bedding is helpful, straw is the second best choice. Avoid shavings, sawdust, or sand as they aggravate the lesions. Secondary problems need to be minimized by controlling flies and further contamination. Zinc oxide seems to be the topical medication of choice. Jen-Sal's Teat Ointment [tradename] is a readily available source.

Photosensitization always needs to be considered when examining outdoor horses with cutaneous skin lesions that include redness, pruritis, swelling, and necrosis.

Affected animals should be removed from pasture or hay containing alsike and be protected from direct exposure to sunlight (i.e., put them in the barn). Phenothiazine has also occasionally been incriminated as a cause of photosensitivity, as has buckwheat.--*Dr. R. D. Scoggins; Equine Extension Veterinarian; College of Veterinary Medicine; University of Illinois; Veterinary Professional Topics; Vol. 8, #3, 1982.*

SUCCESS IS NO ACCIDENT

Practitioners know that key employees can make or break a veterinary practice. There can be a noticeable difference in employee attitudes from one practice to another, often without correlation to salary and facilities.

How we motivate and manage our employees is critical to their on the job attitude. We must be fair and understanding. Treat employees as individuals and co-workers. Above all, give them recognition for a job well done. Just a few words of praise or encouragement given at the proper time can work wonders.

When was the last time you complimented someone who works hard in your practice?--*Kent C. Roberts, D.V.M.; VA-MD Regional College of Veterinary Medicine; Virginia Tech; Blacksburg, VA.*

MEETINGS

The following upcoming meetings will be of interest to veterinarians. If you need further information and programs, please contact Dr. Kent C. Roberts, Director of Continuing Education, at 961-6057.

September 30 - October 1, 1982	Bovine Practitioners Seminar "Reproductive Management" Frederick, Maryland
October 22, 1982	Equine Practitioners Seminar "The Veterinarian as Equine Consultant" Charlottesville, VA (NOTE: Registration fee is $37.00)
October 29 - October 31, 1982	"Advanced Orthopedic Lecture/Wet Lab" VA-MD Regional College of Veterinary Medicine Virginia Tech Blacksburg, VA

The following meetings are open to veterinarians. There is no registration fee. If you need further information, please contact Dr. T. L. Bibb, Extension Specialist, at 961-6057.

September 16, 1982	"Stray Electricity or Voltage on Dairy Farms" State-wide Symposium Madison Heights Holiday Inn Lynchburg, VA (Dr. Robert Gustafson, Department of Agricultural Engineering, University of Minnesota, St. Paul will be the keynote speaker.)

Area workshops on "Stray Electricity or Voltage on Dairy Farms" will be held on October 12 at the Farm Credit Office in Wytheville, VA; on October 14 at the District Extension Office in Warrenton, VA; and on October 19 at the Shenandoah Pride Conference Room in Harrisonburg, VA.

October 6, 1982

Milking Machine Clinic
Holiday Inn (North)
Madison Heights
Lynchburg, VA

MULTIPLE SCLEROSIS

Many hypothesis to explain the etiology of multiple sclerosis have been put forward in recent times, but the veterinary profession should be concerned that both the dog and cat have been considered to be of importance at one time or another. However, there is much convincing evidence to indicate that canine or distemper virus is not implicated in multiple sclerosis.

Further, the hypothesis by Cook (1981, Medical Hypothesis I, 147) that a persistent paramyxovirus present in feline central nervous tissue is transmissible to man and is responsible for the disease must remain simply an hypothesis. To render it credible, evidence concerning the incidence of demyelinating disease in cats in different countries throughout the world is needed, and other factors like the demonstration and an association between children up to the age of 15, pet cats and the incidence of multiple sclerosis require determination. Add to that the distribution and population numbers of cats throughout the world, serological and immunological comparisons between cats and humans and the role of stress as a stimulus for the virus and it becomes clear why the hypothesis will remair an hypothesis.

Two major factors appear to be involved in the etiology of the disease: environmental and genetic. The nature of the environmental factor is uncertain and the evidence for its existence is epidemiological and thus involved geo-climatic and socio-economic variables. It is probably an infective agent and one hypothesis by Martin (1981, Lancer ii, 777) proposes that the disease is caused by infection with herpes simplex virus type 2 (HSV-2) in people lacking herpes simplex virus type 1 (HSV-1) immunity. The rasion d'etre for this particular hypothesis is that mice infected with a strain of HSV-2 have demonstrated multifocal primary demyelination and the extrapolation is that multiple sclerosis may thus develop in some individuals infected with HSV-2. Previous HSV-1 immunity does provide considerable protection against severe disease due to HSV-2 and thus the relationship between the two viruses is considered important. Like multiple sclerosis, HSV-2 infections are first seen in puberty and peak incidence is seen in the 25 to 34 age group.

Undoubtedly this hypothesis will receive further attention in the not too distant future for multiple sclerosis demands a cure. No doubt case control studies of HSF-1 and HSV-2 immunity in people with optic neuritis will be duly completed, and this particular hypothesis will either become less tenable or be subjected to ever more rigorous scrutiny. However, the association between pet animals and man has been castigated before and no doubt its turn will come again.--*The Veterinary Record; January 30, 1982; as reported in Notes from the Extension Veterinarians; Veterinary Medical Center; Kansas State University; Manhattan, Kansas.*

WARFARIN TREATMENT FOR NAVICULAR DISEASE

The theory behind the use of anticoagulants for navicular disease is to allow the development of a secondary blood supply at the borders of the navicular bone.

At the 1979 AAEP meeting, Colles reported an 80% success rate with warfarin treatment, and about that same success rate has been experienced at Colorado State University.

However, warfarin treatment should be utilized as a "sharp tool": with respect. If you're satisfied with posterior digital neurectomy or corrective shoeing, then don't change to warfarin treatment for the condition.

Establishment of the individual dosage is the most critical aspect of treatment and continued monitoring of blood samples for prothrombin time is essential on at least a monthly basis. It may take 3 weeks or 3 months for the horse to go sound. The owner cannot just increase the dose on his own as this could result in a toxicity problem with hematomas, etc.

Client selection is very important. Animals that are viewed as an "economic tool" should not be considered. The patient should be a "family-horse" and the client should be willing and able to draw blood samples. The clients should also have access to a non-treated horse so they can submit a control sample each time. There must be excellent client-DVM communication.

The main expense involved is the lab tests for prothrombin times. A local hosptial can run the tests or the samples can be mailed to a central lab provided they arrive within 4 days.

1) Establish the normal prothrombin time (normal is 8-10 sec.). Use whole blood in a blue top tube.

2) Begin dosing, usually with 10 mg (two 5 mg tab.) per day in the feed, making sure the horse eats the medication. (Crush, mix with molasses in a bowl and watch them eat it).

3) Recheck blood at 7-10 day intervals, since it takes a week for any change to occur.

4) Increase or decrease dosage (in increments of 20% of current dose) to obtain a prothrombin time of 1-1/2 times normal (approximately 12-16 seconds).

5) Continue treatment after the patient goes sound for as long as the effect is desired.

6) After soundness is stabilized, check the blood prothrombin once per month. Don't try to extend test intervals!

In cases of toxicity, a blood transfusion is the most rapid therapy. Vitamin K is antidotal but won't stop hemorrhage immediately.

Other drugs, such as phenylbutazone, cannot be used concurrently, as they may potentiate the effects of warfarin. This method of treatment should not be used in pregnant mares because the fetus is more sensitive to anticoagulants than adults. Avoid organophosphate dewormers on these horses.--*presentation by A. S. Turner at the Colorado State University Annual Conference for Veterinarians; January 1981; edited from notes by Clell V. Bagley, D.V.M.; as reported in Veterinary Professional Topics; College of Veterinary Medicine; University of Illinois; Vol. 7, #4, 1981.*

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