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DR. GARY ALTHOUSE
SFT PRESIDENT

...from the president

One of the main goals of the Society for Theriogenology is to provide continuing education to our membership. Among veterinary organizations, I would venture to say that the CE offered to you through the Society (i.e., symposia, annual conference, proceedings, newsletter, website, etc.) is one of the best values found in our profession. But is this good? Is saying that we offer one of the lowest annual membership and national conference registration fees in the veterinary profession a plus? Or does this reflect a diminished value placed on the knowledge you receive from the Society? Worse yet, does it diminish the perceived monetary value of what we feel we can charge for this knowledge? If you don't pay a lot to expand your knowledge, will you charge a lot when you share your new information with clients?

Several years ago, I began to take notice of the large amount of time I spent answering questions and providing advice (i.e., knowledge) on the phone and via email. At that same time, I realized that each hour spent on the phone/computer was an hour of lost income generated through an appointment as well as a "gift" of my knowledge. Most veterinarians squeeze phone calls in on lunch hours, breaks, and after hours... all to apparently please our misguided clients or potential clients. Can you conceive of dialing or emailing your dentist's or physician's office and asking to talk directly to the dentist/physician... and actually being taken seriously?! Why then are we different? In any medical profession, we all want to keep our clients happy and serve them well, but we also want lives of our own and recognition of the value of our knowledge. After coming to this realization, I found that I had two choices: (1) don't take client calls but instead have support staff screen calls, answer those within their knowledge base and schedule appointments for those requiring the Doctor's input, or (2) continue to take the calls but implement a charge for phone consultation.

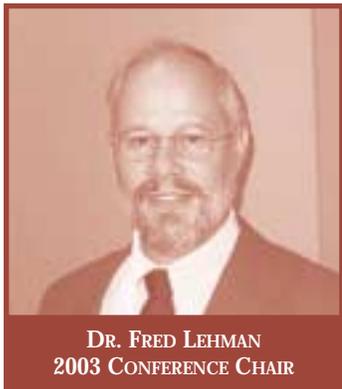
In my situation as a predominantly swine-oriented practitioner, the practical solution was the latter option since it would take a really long phone call to exceed the time and travel expense of a farm visit. I was hesitant at first when I considered implementing a phone consultation charge. Surprisingly, I found that my clients were more receptive than I had anticipated once I explained that sharing knowledge over the phone (usually at long distance rates) was equivalent to an on-site visit, within limits, and therefore subject to similar charges. Now I divide the hour into 10 six-minute increments and charge to the nearest increment. In some practices, having support staff handle calls may be more practical, but it is important that they understand the limits of their training and schedule appointments for the Doctor when appropriate. Both approaches allow us to control the free flow of knowledge. Are either appropriate for you?

All of us can appreciate that many of the traditional profit bases of veterinary practice have disappeared or will soon. This evolution only emphasizes the fact that the services we provide based on the intangible knowledge contained within our brains must be protected and valued appropriately. So don't let the bargain value of this membership diminish the true value of the knowledge that it provides. Your training is your future and you must value it. If you don't value it, why would your clients?

The Ship Has Set Sailfor COLUMBUS

Ohio

Columbus has been discovered and all indications are that our trip will be "smooth sailing" for the SFT Fall Conference, September 18-20. Melinda Kuest, our meeting planner and I attended the AABP Program Committee planning session in November and took the opportunity to visit the convention center and hotel properties.



Columbus, Ohio is a busy, modern city located in the heartland with the spirit of a university town. It has an excellent airport, which is a \$16 cab ride to downtown and the convention center. An excellent location for a convention!

The Columbus convention center is a well-kept secret. It will easily accommodate our meeting and the AABP annual conference concurrently. This

will allow us to fully synergize with AABP during the Friday joint session. Also, the hotels are conveniently located across the street from the convention center and a number of eateries are within walking distance.

The program session chairs including Drs. Herris Maxwell (food animal), Robert Hutchison (small animal), Walter Zent (equine co-chair) and Brian Carroll (equine co-chair) are laying the groundwork for an outstanding program. The thread that will be weaved



throughout the program will be using Theriogenology as an economic tool for practicing veterinarians and/or their clients. Dr. Ahmed Tibary will be chairing a small ruminant symposium plus Drs. Robert Hutchison and Peggy Root-Kustritz are planning a feline symposium on Saturday.

Mark your calendars! Set your compass! Gang-way for a great conference in Columbus.



SFT Management is Moving!

Starting January 1, 2003,

You can reach the offices and Executive Director of the SFT,

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President's Message

Greetings and Best Wishes for the Holiday Season. This will be a short message, not because the Board hasn't been busy, but due to printing deadlines. In the last newsletter, I wrote of the decision at our annual business meeting by the Diplomates to elect a committee to examine possible interactions between ACT and ECAR. Unfortunately not everyone received their newsletter and ballot in time to cast their vote,



DR. DALE PACCAMONTI
ACT PRESIDENT

but the election was carried out as directed and the following persons were elected to the committee: Drs. Willis Parker (Chair), Dickson Varner (Vice Chair), Claire Card, Maarten Drost and Vicki Meyers-Wallen. I believe the committee has been working diligently on the task assigned to them and if you have any thoughts or suggestions on the subject, I would urge you to contact one of the committee members.

After three years with Walker Management, our contract for Executive Director services was up for renewal and as part of the process we sent out a request for proposals to a number of companies. After consideration of all the proposals submitted, we have chosen Dr. Charles Franz as our new Executive Director. The new address for the ACT will be:

ACT
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Phone, fax and email contacts are still being determined but you will be notified as soon as they are available.

The winter meeting of the Board of Directors will be held Jan 31- Feb 1, 2003. If there are any items you would like considered please notify one of the Board members so that it can be placed on the agenda.

Remember to submit abstracts to Dr. Jeannette Floss for the either the competitive or noncompetitive abstract sessions for the 2003 Annual Conference. Wishing you all the best for the New Year.



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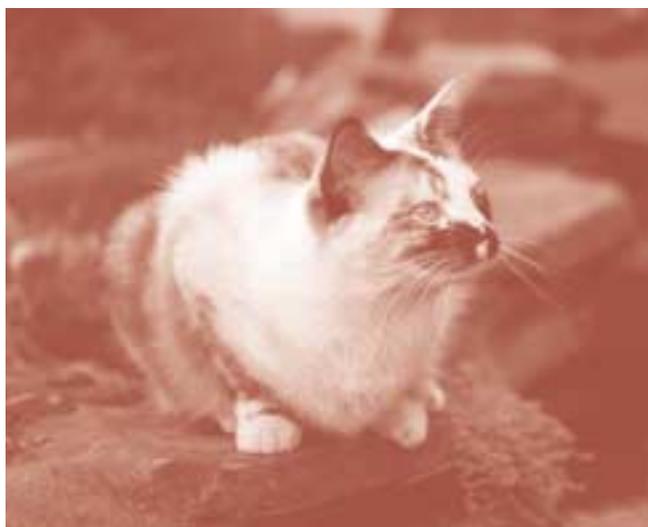
Effects of Early Age Gonadectomy on Skeletal Development in Dogs and Cats

David Wohlstadter
VM-3, University of Missouri

In efforts to reduce the millions of animals euthanized due to overpopulation, the AVMA House of Delegates in 1993 approved Resolution 6 which stated: "Resolved, that the AVMA supports the concept of early (8-16 weeks of age) ovariohysterectomies/ gonadectomies in dogs and cats in an effort to stem the overpopulation problem in these species".¹ The safety of early-age gonadectomy and its effect on skeletal development is a major concern of some veterinarians considering the implementation of early age gonadectomy in their practice.

Longitudinal bone growth and physal closure are dependent on estrogens and androgens.² While low doses of estrogen stimulate longitudinal bone growth, high doses of estrogen inhibit this growth and promote physal closure by promoting calcium deposition.² Androgens promote physal closure by causing the degeneration of hypertrophied chondrocytes, proliferation of capillaries and perivascular mesenchymal tissue, and calcium deposition.² Longitudinal bone growth in dogs and cats ceases with physal closure around the time of the first estrus in females and around the time that sperm first appears in the ejaculate of males.² Normal closure of the distal radial physis in the cat occurs between 14 and 20 months of age.² Root *et al.* investigated the effects of pre- and postpubertal gonadectomy on the closure of the distal radial physes of domestic cats.² 36 cats (18 males and 18 females) were evenly divided into three study groups.² Group 1 cats had a gonadectomy at 7 weeks of age, group 2 cats had a gonadectomy at 7 months of age and group 3 cats were left intact and served as a control group.² After analyzing radiographs of the right front forelimb at intervals of 4 months for a period of 24 months, it was concluded that both groups 1 and 2 had delayed closure of the distal radial physis when compared to group 3.² These data support those produced in a similar study by Stubbs *et al.* in which it was found that distal radial physal closure was delayed by 8 weeks in cats gonadectomized at 7 weeks or 7 months when compared to intact control cats.³ Root *et al.* propose that the distal physis may be dependent on gonadal steroids for closure, thus delaying closure for those cats gonadectomized prior to the pubertal onset of gonadal steroid release.² Radial length at 24 months of age was compared among the three groups and it was concluded that males gonadectomized at 7 weeks or 7 months had a radial length 13 % greater than intact males.² Females gonadectomized at 7 weeks or 7 months had a radial length 9% greater than intact females.² Stubbs *et al.* found a statistically insignificant increase in mature radial and ulnar length in cats that underwent gonadectomy at 7 weeks or 7 months when compared to intact cats, but proposed that an increase in number of cats studied may find a statistically significant difference.³ There was no greater incidence of Salter-Harris fractures in cats gonadectomized at 7 weeks when compared with those gonadectomized at 7 months.²

A study by Salmeri *et al.* found that closure of the ulnar and radial growth plates in dogs gonadectomized at 7 weeks was delayed by 4 months and dogs gonadectomized at 7 months was delayed by 3 months when compared to intact dogs.⁴ It was proposed that this delay in physal closure can be attributed to a



lack of the gonadal hormones testosterone and 17- β estradiol.⁴ Time of physeal closure in male dogs gonadectomized at 7 weeks and 7 months were similar, while time of physeal closure in females gonadectomized at 7 weeks took 9 weeks longer than those gonadectomized at 7 months.⁴ These delays in physeal closure resulted in increased radial length in all gonadectomized males and in females gonadectomized at 7 weeks when compared to intact animals.⁴ Salmeri *et al.* proposed that the increase in radial length was not due to an increase in growth rate but rather an extended period of growth in which the physeal plates remained open.⁴ It was not determined if this delay in physeal closure predisposes dogs to a greater incidence of Salter-Harris fractures.⁴

Some have assumed that delayed physeal closure and the resultant increase in long bone length, along with a decrease in muscle mass due to a decrease in testosterone predispose dogs gonadectomized at an early age to hip dysplasia or angular limb deformities.⁵ Howe *et al.* evaluated 269 dogs via phone conversation with owner approximately 4 years after gonadectomy in order to compare long-term results of dogs gonadectomized at traditional age (≥ 24 weeks of age- 94 dogs) and those gonadectomized prepubertally (< 24 weeks of age- 175 dogs).⁵ Musculoskeletal problems including hip dysplasia were seen in 8% of all dogs.⁵ There was no statistically significant difference in incidence of musculoskeletal problems (including hip dysplasia) between dogs who underwent gonadectomy at a traditional age and dogs that underwent prepubertal gonadectomy.⁵ No dogs in this study were afflicted with angular limb deformities.⁵ In an identical study

performed on cats who were evaluated after 3 years, Howe *et al.* found no statistically significant difference in the musculoskeletal system of cats who underwent prepubertal or traditional gonadectomy.¹

Based on current research, the effects of early age gonadectomy on skeletal development appear to be insignificantly different from those of traditional age gonadectomy. Thus, concerns about skeletal development should not be a factor when determining the safety of early age gonadectomy.

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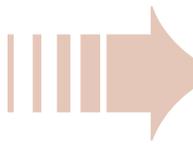
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The Society for Theriogenology presents a forum on **CONTROL OF THE BOVINE ESTROUS CYCLE**

Filmed at the 2002 SFT Annual Conference & SFT/ACT Symposia held in Colorado Springs, Colorado—August 9-10, 2002.

If you would like to purchase a copy of this DVD for \$10.00, please visit the SFT website at www.therio.org and click on the link to order a copy.

PRESENTERS & TOPICS:

- *Review of Hormonal Events of Bovine Estrous*—Milo Wiltbank, DVM
- *Dynamics of Estrogen & Prostaglandin F2a during the Postpartum Period & the Estrous Cycle*—Bill Thatcher, DVM
- *Controlling the Estrous Cycle with Progestogens*—Matt Lucy, PhD
- *GNRH & Estrous Control*—Milo Wiltbank, DVM
- *Increasing the Odds for Successful Beef Cattle Synchronization Programs*—John Spitzer, MD, PhD
- *Management Strategies to Maximize Pregnancy Rates in Dairy Cattle*—Bill Thatcher, DVM
- *FSH Super Ovulation & Estrous Control*—John Shull, DVM, DACT
- *Regulatory Environment*—M. Gatz Riddell, Jr., DVM, DACT
- *Future Trends in Reproductive Management*—Matt Lucy, PhD

Assessment of Cabergoline as a Reproductive Inhibitor in Coyotes (Canis latrans)

DELIBERTO,TJ; SEGLUND,A; JOCHLE,W; KIMBALL,B (2002):REPRODUCTION SUPPL 60,53-64.



The efficacy of three oral formulations (gelatin capsule, tablet, oil base) and five dosages (50, 100, 250, 500, 1000 mug) of cabergoline to disrupt reproduction in coyotes (*Canis latrans*) was evaluated. The type of formulation used had no effect on plasma progesterone and prolactin concentrations or on mean litter size. No adverse side effects (for example, vomiting, anorexia, diarrhea) were observed despite the use of doses of up to 20 times the therapeutic dose used for domestic dogs and cats. All coyotes treated with 50, 100, 250 and 500 mug cabergoline whelped, but plasma progesterone concentrations in these coyotes were lower ($P < 0.07$) than in control animals at day 7 after treatment. Ten of 11 females treated with 1000 mug cabergoline whelped, but progesterone concentrations in these coyotes were lower than in control animals up to day 14 after treatment ($P < 0.04$). Dosages of 1000 mug cabergoline decreased blood serum prolactin ($P < 0.10$) and progesterone ($P < 0.06$) concentrations, but apparently failed to decrease

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progesterone below the threshold necessary to maintain pregnancy in all but one animal. However, progressive inhibition of prolactin and progesterone with increasing doses of cabergoline indicated that higher dosages might be effective in coyotes. Survival of pups born to cabergoline-treated females was not different ($P < 0.001$) from that of pups born to control females, but mean litter size was smaller for females treated with cabergoline ($P < 0.073$) than for the control females. Although all cabergoline treatments in this study were ineffective at preventing reproduction in coyotes, progressive inhibition of prolactin and progesterone with increasing dosages of cabergoline indicates that higher doses might be effective in preventing reproduction in coyotes. However, the physiological differences from other canine species in dopamine D2 receptors and mechanisms of luteal support may ultimately prevent the use of cabergoline for reproductive control in coyotes.



Absence of Bovine Leukosis Virus in Semen of Seropositive Bulls

K. YEON CHOI,KY; MONKE,D; STOTT,JL (2002): J VET DIAG INVEST 14, 403-406.

A polymerase chain reaction (PCR)-based detection system was established to identify the presence of bovine leukosis virus (BLV) DNA in bovine semen. Seventy-nine bulls were included in the study. Serum, peripheral blood leukocytes, and semen were collected from each of the 79 bulls. The BLV-specific antibody was detected in serum by agar gel immunodiffusion

and viral DNA in blood and semen by PCR. Serologically, 29 of the 79 bulls were BLV positive. Twenty-seven of the 29 seropositive bulls and 1 of the seronegative bulls had BLV DNA in peripheral blood leukocytes. All 79 bulls tested PCR negative for the presence of BLV in semen. These data are strong evidence that properly collected semen from BLV seropositive bulls will not contribute to dissemination of this viral infection.

Reproductive Endocrinology and Postweaning Performance in the Multiparous Sow Part 1. Influence of Metabolic Status During Lactation

HULTEN,F; VALROS,A; RUNDGREN,M; EINARSSON,S (2002). THERIOGENOLOGY. 58, 1503-1517.

The metabolic status of the sow during lactation might influence reproductive endocrinology and the postweaning reproductive performance. With regard to the multiparous sow, previous studies addressing this topic are scarce and the results inconsistent. Blood samples were collected from 18 multiparous sows during lactation and after weaning for analysis of nonesterified fatty acids (NEFA), triglycerides, creatinine, urea progesterone, LH, and estradiol-17beta. Based on the average preweaning NEFA levels the sows were divided into a "high" and a "low" catabolism group. The NEFA values were higher in the

"high" group during each of the last 3 weeks of lactation. The levels of urea, creatinine and progesterone were similar ($P > 0.05$) in the two groups throughout the study. Reproductive functions seemed equally inhibited during lactation in the two groups and there were no differences in postweaning reproductive performance. The results suggest that metabolic rate during lactation varies considerably between equally nourished multiparous sows but this has no influence on postweaning reproductive performance.



Impaired Semen Quality of AI Bulls Fed with Moldy Hay: A Case Report

ALM,K; DAHLBOM,M; SAYNAJARVI,M; ANDERSSON,MA; SALKINOJASALONEN,MS; ANDERSSON,MC (2002). THERIOGENOLOGY. 58, 1497-1502.

The daily quality control of semen at a Finnish artificial insemination (AI) bull station is based on subjective motility and sperm morphology of young bulls entering the semen collection program. Semen quality dropped suddenly in autumn 1998. During 5 consecutive months, the number of rejected ejaculates and discarded frozen semen batches due to poor motility increased, and the number of all forms of abnormal spermatozoa increased. However, for the accepted ejaculates, a 60 day

nonreturn rate was normal. The summer of 1998 in Finland was rainy, and the hay used in the AI station was visibly moldy. Immunoassay and gas chromatography-mass spectrometry (GC-MS) detected Fusarium mycotoxins HT-2 and T-2, but no zearalenone in the hay. Occurrence of mycotoxins such as T-2 and HT-2 in the moldy hay coincided with, and may have been responsible for the impaired semen quality in AI bulls. This case report will draw the attention to the possible hazards when feeding moldy hay.



Focused Ultrasound Ablation of the Epididymis With Use of Thermal Measurements in a Canine Model

FRIED,NM; ROBERTS,WW; SINELNIKOV,YD; WRIGHT,EJ; SOLOMON,SB (2002). FERT. STERIL. 78, 609-613.

Objective: To explore the epididymis as an alternative anatomical target to the vas deferens for noninvasive male sterilization using therapeutic focused ultrasound. Design: Controlled preclinical study. Setting: Canine animal model in an academic research environment. Patient(s): Four healthy male mongrel dogs (30-35 kg). Intervention(s): A transducer mounted on a plastic clip delivered ultrasound energy to the canine epididymis. Thermocouples placed transcutaneously into the epididymis, intradermally, and on the skin surface recorded temperatures during ablation with a wide range of acoustic powers and sonication times (control, 3 W/120 s, 5 W/90 s, 7 W/60 s). Main Outcome Measure(s): Thermocouple temperature measurements

determined the optimal range of ablation parameters that produced successful thermal occlusion of the epididymis without adverse effects (e.g., skin burns, testicular injury). Result(s): A large "therapeutic window" was determined (power = 3-7 W, time = 20-120 seconds) over which noninvasive thermal occlusion of the epididymis can be achieved. Thermal occlusion rates were higher, and complications lower, than found previously with vas deferens ablation. Conclusion(s): The epididymis represents a larger and easier target than the vas deferens for performing noninvasive male sterilization using focused ultrasound. Long-term azoospermia studies will be necessary to confirm permanent sterilization with this technique.

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Reversibility of Action and Safety During Pregnancy of Immunization Against Porcine Zona Pellucida in Wild Mares (*Equus caballus*)

KIRKPATRICK,JF; TURNER,A (2002). REPRODUCTION. SUPPL 60, 197-202.



Contraceptive management of publicly valued wildlife species requires safeguards to ensure that these populations are preserved in a healthy state. In addition, reversibility of contraceptive effects and safety in pregnant animals are major concerns. A population of wild horses has been immunized against porcine zona pellucida (PZP) over a 12 year period on Assateague Island National Seashore, MD (ASIS). Mares initially received one or two 65 mug inoculations and once a year 65 mug booster inoculations, all delivered by dart. All young mares aged > 2 years were treated with PZP for 3 consecutive years regardless of whether they have bred successfully and they were then removed

from treatment until they had foaled. All mares vaccinated for 1 or 2 consecutive years became fertile again and 69% of mares treated for 3 consecutive years returned to fertility. All five mares treated for 4 or 5 consecutive years have also returned to fertility, but over longer periods of time. Mares treated for 7 consecutive years have not returned to fertility, but several, while still infertile, have started ovulating again. There was no difference in survival rates between foals born to treated and untreated mares, and PZP treatment of pregnant mares did not affect subsequent fertility of their female offspring.



Administration of Sulpiride to Anovulatory Mares in Winter: Effects on Prolactin and Gonadotropin Concentrations, Ovarian Activity, Ovulation and Hair Shedding

DONADEU,FX; THOMPSON,DL (2002). THERIOGENOLOGY. 57, 963-976.

Sixteen seasonally anovulatory mares were randomly allotted to two groups and injected daily with either sulpiride (1 mg/kg body weight) or vehicle from 14 January to 14 February. Sulpiride administration increased daily plasma prolactin concentrations ($P < 0.05$), although the prolactin response during the 6 h following sulpiride injections decreased markedly from the 1st to the 6th day of treatment (treatment by day, $P < 0.0001$). Plasma concentrations of LH and FSH were not affected by treatment ($P > 0.1$). Injection of GnRH and TRH on 15 February showed that the response of plasma prolactin to secretagogue was increased in sulpiride-treated mares ($P < 0.005$), while there was no effect ($P > 0.1$) of sulpiride treatment on the response of

LH or FSH. Both treatment groups had similar changes in numbers of follicles 10-19 and greater than or equal to 20 mm during the experiment ($P > 0.1$). Similarly, the mean change in maximal follicular size was not affected by treatment ($P > 0.9$). No mare ovulated during the study, and plasma progesterone concentrations were similar in both groups ($P > 0.1$), always at levels < 1 ng/ml. Hair shedding increased with time in all mares ($P < 0.001$) and was increased by sulpiride injections ($P = 0.09$). It was concluded that sulpiride administration to seasonally anovulatory mares under the conditions of our experiment increased daily plasma prolactin levels but did not stimulate gonadotropin secretion or ovarian activity.

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Effects of Deslorelin or hCG Administration on Reproductive Performance in First Postpartum Estrus Mares

BLANCHARD,TL; BRINSKO,SP; RIGBY,SL (2002). THERIOGENOLOGY. 58, 165-169.



A tendency for deslorelin implants to suppress subsequent follicular growth and delay return to estrus following induced ovulation has been documented in nonlactating mares. To investigate this phenomenon in lactating mares, 22 broodmares in southeast Texas were administered either deslorelin or hCG to induce ovulation in the first postpartum estrus during February and March 2001. Mares were teased daily and examined twice weekly (Tuesdays and Thursdays) by transrectal ultrasonography. When a follicle greater than or equal to 35 mm diameter was detected on Tuesday, mares were treated with either 2500 U hCG administered intravenously or with one implant (2.1 mg) deslorelin administered subcutaneously. Mares were bred every other day until ovulation was detected or until they ceased behavioral estrus, and were examined 16 days after treatment to detect pregnancy. Follicular measurements were recorded for all mares during each examination, and interestrus intervals were

recorded for mares not becoming pregnant. Treatment of mares with either hCG or deslorelin resulted in similar ovulatory responses and pregnancy rates. Deslorelin-treated mares had fewer ovarian follicles greater than or equal to 20 mm in diameter 16 days after treatment than hCG-treated mares ($P < 0.01$). Interestrus intervals for mares failing to become pregnant on foal heat breeding were prolonged in deslorelin-treated compared to hCG-treated mares ($P < 0.01$). Date of treatment was negatively correlated with length of the interestrus interval in deslorelin-treated mares ($P < 0.01$), but was not correlated with length of interestrus interval in hCG-treated mares ($P > 0.10$). All mares failing to become pregnant from foal heat breedings became pregnant from later breedings, but the parturition to conception interval was prolonged in deslorelin-treated compared to hCG-treated mares that: did not become pregnant on foal heat ($P < 0.01$).



Reproductive Endocrinology and Postweaning Performance in the Multiparous Sow

Part 2. Influence of Nursing Behavior

HULTEN,F; VALROS,A; RUNDGREN,M; EINARSSON,S (2002): THERIOGENOLOGY. 58, 1519-1530.

The reason for variation in postweaning reproductive performance among multiparous sows is to a large extent unknown. In the present study, the influence of nursing behavior was explored. Blood samples were collected during lactation and after weaning from 18 multiparous sows for cortisol, LH, estradiol-17beta (E-2), and progesterone analysis. Sow and piglet behavior was videotaped. The sows were fed according to litter size and slaughtered after the second postweaning estrus. The sows were divided into two groups based on average values for the different behavioral parameters. Sows with a long average nursing duration (long group) had

lower average and basal LH levels on Day 14 and 21 of lactation as compared to the sows having a short average nursing duration (short group). In the long group, concentrations of E-2 were lower the day after weaning, but on Day 15 and 21 of lactation no differences were noted between the two groups. Postweaning performance seemed impaired in the long group, though, differences were not significant. The sows in the long group were heavier and tended to lose less weight during lactation. To conclude, nursing duration seems to influence the extent to which reproductive functions are inhibited during lactation.

Collection of Preputial Material by Scraping and Aspiration for the Diagnosis of Tritrichomonas foetus in Bulls

IRONS,PC; HENTON,MM; BERTSCHINGER,HJ (2002). J. S. AFR. VET. ASSN. 73, 66-69.



Two trials were carried out to assess the diagnostic sensitivity and practicability of preputial scraping as a method of collecting preputial material from bulls infected with Tritrichomonas foetus. In the 1st trial, preputial material was collected by simultaneous scraping and aspiration from 3 infected and 1 uninfected bull 10 times over a 5-week period. In the 2nd trial, samples from 5 infected bulls were collected by both sheath washing and scraping on 6 occasions, while 8 uninfected animals were sampled 3 times. Samples were cultured using a modified Trichomonas culture medium (Oxoid). In the first trial, 29 of 30 samples from infected bulls were found to be positive. In the second

trial, 83% of samples collected by both methods tested positive. In neither trial were any samples from the control bulls found to be positive. Scraping was found to be quick and safe, and offered advantages over preputial washing in that urine contamination was easily avoided, samples were smaller and more concentrated and contamination was reduced. It may, however, be subject to greater operator variability than sheath washing. It is concluded that preputial scraping is as effective as washing and represents a suitable alternative for the collection of material for direct examination and culture of Tritrichomonas foetus.

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The Use of Plasma Progesterone Profiles to Predict the Reproductive Status of Anestrous Gilts and Sows

CHUNG,WB; CHENG,Wf; WU,LS; YANG,PC (2002); THERIOGENOLOGY. 58, 1165-1174.

A plasma progesterone profile obtained from three consecutive blood samples with an interval of 7 days was evaluated for usefulness as the basis for the diagnosis and treatment of anestrous gilts and sows. Four reproductive statuses were categorized based on the plasma progesterone levels and pathological examination of the reproductive organs from 25 gilts and 12 sows with anestrus. Category 1: fluctuating (at least one sample <2.5 ng/ml and one >10 ng/ml) with normal ovary; Category 2: sustained low (<2.5 ng/ml) with inactive ovary; Category 3: persistent high (>5 ng/ml) with normal sized or cystic corpora lutea;

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and Category 4: animals not included in the categories mentioned, such as pigs with luteinized cysts and follicular cysts. Using the plasma progesterone profiles and this categorization, the reproductive status of 54 gilts and 38 sows with anestrus was predicted. Hormonal treatments were performed with moderate to high success. Results from this study indicate that plasma progesterone profiles can be useful for the determination of estrus status, for the diagnosis of the causes of anestrus, and for the prediction of the next estrus for an appropriate hormonal treatment in anestrous gilts and sows.

Prediction of Foaling Using Mammary Secretion Constituents

DOUGLAS,CGB; PERKINS,NR; STAFFORD,KJ; HEDDERLEY,DI (2002). N. Z. VET. J. 50, 99-103.



AIMS: To test published models for predicting time of foaling using data derived from prepartum mammary secretions and to develop a new model based on concentrations of mammary secretion constituents that accurately predicts time of foaling in Thoroughbred mares. **METHODS:** Concentrations of sodium, potassium, calcium, citrate and lactose were measured in prepartum mammary secretions of 20 Thoroughbred mares in the 2 weeks before expected date of foaling. Models to predict time of foaling were fitted to data based on absolute concentration, change in concentration, and percentage change in concentration of mammary secretion constituents in relation to actual intervals to foaling. **RESULTS:** Concentrations of potassium, calcium, citrate and lactose increased, and concentration of sodium decreased as foaling approached but

variation between mares was large. Models to predict time of foaling based on percentage change in electrolyte concentrations were less accurate than those based on absolute concentration and change in concentration. When data from this study were fitted to two previously published models, the statistical sensitivity, specificity, and positive and negative predictive values of both models were lower than those originally reported. **CONCLUSIONS:** The use of prepartum equine mammary secretion electrolyte concentrations for prediction of time of foaling is unreliable, due to large variation in both absolute concentrations and change in concentrations between mares. Models that use a combination of mammary secretion electrolytes and physical and behavioral factors may better predict foaling than those based on mammary secretions alone.

Classifieds

EQUINE VETERINARIAN REQUIRED

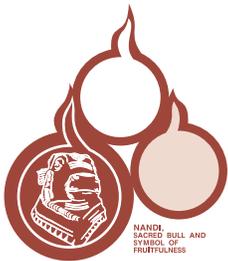
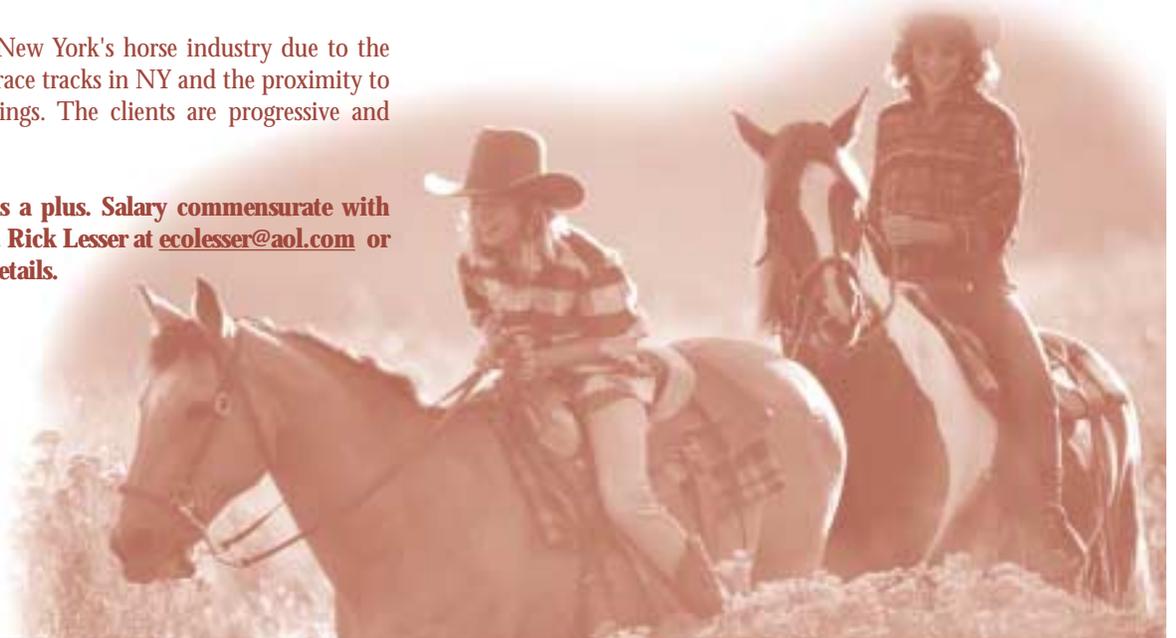
Currently seeking an experienced veterinarian to join practice either for the 2003 breeding season (FEB-JULY) or as a permanent position. There is one large Thoroughbred breeding farm in the practice (approx 150) mares that would be the responsibility of the incoming veterinarian. There are a number of smaller farms that would also require reproductive work. Palpation/ultrasonography; fresh, chilled and frozen semen inseminations, barren mare workups, stallion management and subfertility, neonatology and embryo transfer would be involved. Some emergency duty would be required.

This is an expanding area of New York's horse industry due to the arrival of slot machines at the race tracks in NY and the proximity to the racetrack at Saratoga Springs. The clients are progressive and professional.

Board certification in ACT is a plus. Salary commensurate with experience. Please contact Dr. Rick Lesser at ecolessr@aol.com or at (518)767-2906 for more details.

EQUINE VETERINARIAN REQUIRED

Full-time associate required for 3-person, exclusively Equine Practice west of Calgary; 30% in-clinic (large percentage of theriogenology) and 70% ambulatory (in training and boarding stables, and on breeding and hobby farms); practice very busy in the spring and summer, slow in the winter; prefer person with strong equine background, and experience in all aspects of theriogenology who is seeking a long term position; **resume to Dr. Wayne Burwash, 244071 Panorama Ridge, Calgary, AB, T3Z 3L6; Fax: (403) 242-9361; e-mail: burwash@telusplanet.net**



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