WEEMS AND STEPHENS EQUINE HOSPITAL

Equine Update

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Special points of interest:

- Gastric ulcers are common in performance horses.
- Shock wave therapy can help your horse recover from serious injuries.
- WSEH now offers laparoscopy.
- New surgeon at WSEH.

Inside this issue:

Interesting Case from WSEH

by John Janicek, DVM

On the evening of October 13th, a 7-month-old filly decided to cool off by taking a swim into the backyard pool. A gate was inadvertently left unlatched allowing the horse access to the backyard area. A green tarp was over the pool; however, the filly ventured out onto the tarp. Consequently, the tarp ripped plunging the horse into approximately 6 feet of water. Luckily, the mishap was observed and a lead rope was attached to the halter. Subsequently, the tarp was untangled from the horse and water was drained from the pool. Once the water was emptied from the pool, multiple quilts were placed on the bottom of the pool floor to improve footing. Numerous attempts to get the horse to walk up the steps were unsuccessful. At this point, the WSEH veterinary team stepped in. The horse was sedated, a sling was placed, and the filly extracted from the empty pool using a tractor.
All in all, the entire situation was quite exciting, funny, and best of all everyone involved survived uninjured.

Dr. Janicek helping remove the filly from the pool.

Gastric Ulcers

by Lisa Schultz, DVM

In order to discuss gastric ulcers, we must first understand the anatomy of the equine stomach. The equine stomach is divided into two parts: the glandular portion and the non-glandular portion. These two portions are separated by a structure called the margo plicatis. The glandular portion is on the bottom of the stomach and is responsible for the production of acids, which begin the digestive process. The non-glandular portion is located on the top of the stomach and is basically space for food to accumulate. The non-glandular portion is not designed to come into contact with the digestive acids. When it does, the problem begins. *Who gets gastric ulcers?* Every horse has the potential to get gastric ulcers, but some horses are at a higher risk. These include: foals, race horses, and horses on a rigorous show schedule. It has been reported that 60-90% of horses that are racing or showing have some degree of gastric ulcers. *What are the risk factors involved?* Risk factors for gastric ulcers include: stall confinement, intensive exercise, functional or mechanical gastric outflow obstruction, and feeding practices. Feed deprivation can induce gastric ulceration. Feeding large amounts of concentrates a few times a day appears to increase the incidence of gastric ulcers. *What are the clinical signs?* Clinical signs can vary from horse to

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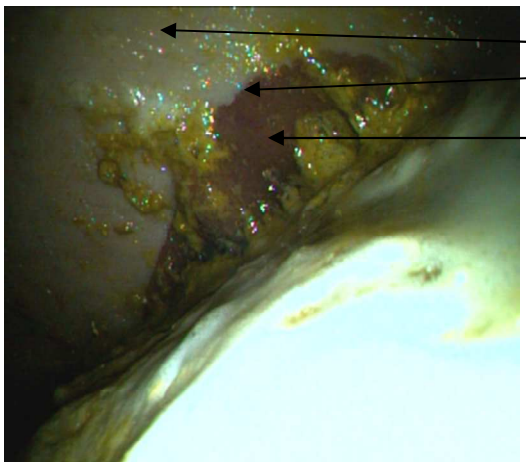


View of an equine stomach through a fiber optic video endoscope. The red area is the glandular portion, and the pale area is the non-glandular portion. This is a normal stomach with no ulcerations.

Gastric Ulcers cont. from page 1

Omeprazole is the only drug with scientific research proving it treats gastric ulcers.

horse, but can include poor appetite, poor performance, colic, teeth grinding and weight loss. *How do gastric ulcers happen?* Gastric ulcers occur when the acids being secreted by the glandular portion of the stomach come in contact with the non-glandular portion of the stomach, harming the cells of the non-glandular portion. *How do we diagnose gastric ulcers?* The only way to definitively diagnose gastric ulcers is by gastroscopy. This is where a fiber optic endoscope is passed through the horse's nose, down the esophagus and into the stomach. The stomach can then be visualized and a definitive diagnosis can be made. Sometimes a diagnosis of gastric ulcers is tentatively made based on clinical signs. *How do we treat gastric ulcers?* There are a number of products on the market that claim to treat or prevent gastric ulcers. Many have no scientific research to back up these claims, but anecdotal reports may indicate they have some efficacy. Omeprazole (Gastroguard) is the only drug with scientific research proving it treats gastric ulcers. Other things to consider in the treatment of gastric ulcers are management concerns. Alfalfa hay seems to help, due to its calcium content and the amount of saliva produced as the horse eats alfalfa (saliva buffers the acids produced in the stomach). Grazing also appears to help. This has been a brief overview of Equine Gastric Ulcer Syndrome, there is much research being done at this time, which will help us to successfully treat gastric ulcers in horses in the future.

Shock wave therapy initiates a healing response by causing blood vessel formation.

Shock Wave Therapy

by: Cole Sciba, DVM

Shock wave therapy is done on a standing sedated horse.

Extracorporeal Shock Wave Therapy (ESWT) is a relatively new method of treatment for horses suffering from lameness. ESWT works by generating pulses of high pressure sound that travel through the skin to initiate tissue repair. It produces the high pressure sound wave by an electrohydraulic, or "spark-gap" method. With this technique an electrode (spark plug) ignites an electrical charge within a water contained chamber creating a shock wave which is transmitted through the skin surface of the patient to the treatment site. The FDA has approved ESWT for use in humans to treat various orthopedic conditions. In horses it is being used to treat suspensory ligament desmitis, bowed tendons, ringbone, bone spavin, bucked shins, splints, sore backs, navicular syndrome and non-healing fractures. ESWT is thought to work by inducing microtrauma to the tissue that is affected. This initiates a healing response by the body by causing blood vessel formation (neovascularization) which increases delivery of nutrients to the affected area. This increase in blood vessels and nutrients causes the area to heal faster and stronger. ESWT is done on standing, sedated horses on an outpatient basis. General anesthesia is not required and the procedure takes only a few minutes. At Weems and Stephens Equine Hospital we have been using ESWT primarily for treatment of soft tissue injuries for about 5 years. Before deciding if ESWT is right for your horse, a thorough exam and ultrasound of the affected tendon or ligament should be performed. This allows us to determine the extent of the trauma and give us a baseline to track improvement. We have seen more horses recover from these difficult injuries in a shorter period of time with ESWT as apposed to rest alone. ESWT is not a cure all, but when used in conjunction with other treatment modalities such as rest, tendon splitting, Stem Cells or PLP injections we believe it will increase your horses chances of returning to prior performance, and doing this in a shorter period of time. We usually recommend between one and three treatments. For more information regarding shock wave therapy contact us at Weems and Stephens Equine Hospital.

Laparoscopy is Now Available at WSEH

by: John Janicek, DVM

A laparoscope is a specialized camera that allows surgeons to examine the insides of the abdominal cavity (belly). Similar to arthroscopy, the laparoscope is attached to a video camera, which displays the image on a monitor. Unlike traditional abdominal surgery techniques, which require large openings to allow the surgeon's hands to enter the abdomen, laparoscopic surgery is performed through tiny incisions. Specialized long handled surgical instruments are passed through separate cannulas (tubular ports or artificial openings) into the abdomen. Like a video game, the surgeon uses these instruments while watching the procedure on the television screen, cutting and sewing and cauterizing.

With traditional laparoscopy, the abdomen is kept distended with carbon dioxide allowing visual access to many of the abdominal organs. However, a second method of laparoscopy, known as "hand-assisted laparoscopy", is also offered at WSEH. This method uses a combination of traditional laparoscopy without carbon dioxide distention and placement of a hand into the abdominal cavity allowing surgeons to see up close what their hands and instruments are doing within the abdomen.

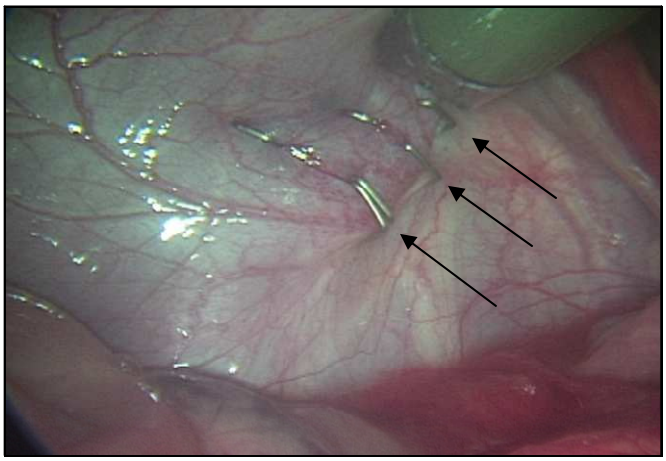
Because laparoscopy is a minimally invasive surgery, it has many benefits including: 1) decreased hospitalization and rehabilitation time, 2) reduced discomfort associated with incisional healing; therefore decreased need for postoperative medications, 3) excellent cosmetic outcome, 4) direct magnified visualization of the surgery site allowing precise suture or implant placement, 5) permits critical evaluation/control of bleeding (hemostasis), and 6) many laparoscopic procedures are performed with the horse standing under sedation and local anesthetic, reducing the inherent risks associated with general anesthesia and recovery.

Conditions commonly reported to be treated using laparoscopy include: adhesiolysis (removal of abdominal adhesions), rectal tears, nephrosplenic space closure (closure of the space between the spleen and left kidney), colopexy (securing the colon to the body wall), nephrectomy (kidney removal), ovariectomy (ovary removal for ovarian tumors or behavioral reasons), cryptorchid castration (retained within the abdomen), and inguinal hernia repair.

Laparoscopy is a specialized field of surgery that has many advantages over standard surgical techniques. It cannot replace all common procedures and requires specialized equipment and training. To determine whether your horse can undergo laparoscopic surgery for its condition, consult with Weems and Stephens Equine Hospital.

Laparoscopy Is a minimally invasive surgery and has many benefits

Above: laparoscopy being performed in a foal under general anesthesia. Below: laparoscopic view during closure of the inguinal ring with staples (black arrows) in a foal that had an inguinal hernia.



Raising the standard in equine care.

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New Surgeon Joins the WSEH Team

John Janicek, DVM, MS, DACVS: Grew up in Bellville, Texas, (70 miles south of College Station) riding and training young horses. He began roping at the age of 10 and continued to rodeo through college. His animal science undergraduate degree was obtained from Texas A&M in 1997. He graduated from Texas A&M University in 2002, which was followed by a 1-year surgical internship at Hagyard Equine Medical Institute in Lexington, Kentucky. Subsequently, he completed an equine surgery residency at the University of Missouri and remained at the University of Missouri for an additional year as a faculty surgeon. In 2007, he became a Diplomate of the American College of Veterinary Surgeons. He obtained a Masters of Science degree in 2007 while performing orthopedic surgery research in the University of Missouri Comparative Orthopaedic Laboratory and the E. Paige Laurie Equine Lameness Endowment Program. His clinical interests include orthopedic and general surgery, and lameness evaluation. Dr. Janicek and his wife Sarah, have a 4-year-old daughter named Abigail and are expecting their second daughter Emma in November.

Visit our new web site at www.wseh.net.