

## Practice News

### Client Evening



Our client evening held on Wednesday 27<sup>th</sup> February at Towcester Racecourse was extremely well attended with over 250 people joining us on the night. Following the raffle and monies received for tickets, we were able to pass on a healthy £500 to the Warwickshire and Northamptonshire Air Ambulance Service.

Our surgical consultant Mr Cedric Chan did not disappoint as our keynote speaker with a very witty and informative insight into the life and times of an equine Olympic Surgeon! We have received some very favourable feedback from those attending this function and will be looking to run similar events in the future. If you have any constructive comments or criticisms, or any topics that you would like covered at subsequent talks, your suggestions would be very gratefully received.

### Repeat prescriptions

Please can we take this opportunity to politely request/remind you that any orders for repeat prescriptions to collect either drugs or a written prescription from either surgery need to be with us a minimum of 48hrs in advance of your proposed collection time. This is to allow time for drugs to be ordered and prescription paperwork processed as required.

Please also remember that due to changes in dispensing law, we are only allowed to prescribe drugs for animals deemed to be "in our care". This means that we will only dispense repeat prescriptions if we have seen your horse within the previous 6 months. Ongoing problems will need to be reassessed every 6 months to ensure that this requirement is fulfilled.

## Tips on Worm Control



With spring in the air it is time that every horse-owner should be considering their worming strategies for the forthcoming grazing season.

While there are many different trade names for wormers and an ever-increasing array of products from which to choose, there are relatively few chemicals available to treat worm burdens in horses – fenbendazole, ivermectin, moxidectin, pyrantel for red worms and praziquantel and pyrantel for tapeworm. No single one of these is effective against every type of intestinal worm that can affect your horse. Also there are an increasing number of products that contain more than one of these chemicals so both redworms and tapeworms can be treated effectively on a routine basis.

Regular 'blind' treatment (*interval dosing*) has led to the development of resistance by some types of worms – they are no longer killed by drugs that used to be effective.

*Strategic dosing* requires an understanding of the life-cycles of intestinal worms with due regard to variations in expected weather patterns that may alter these cycles using appropriate drugs at set times of the year avoiding unnecessary use of worming products.

*Targeted strategic dosing* is one step further, allowing small worm burdens in individual horses (who will develop a degree of immunity). This avoids unnecessary worming and minimises the chance of resistance developing. It does require more organisation – faecal worm egg counts and occasional blood sampling. Blood samples are required to assess tapeworm burdens as these cannot be reliably detected from faecal samples.

If you would like to discuss your worming strategy with one of our vets, then give us a call. We will endeavour to provide a tailor-made program based on your individual circumstances as there is no such thing as a 'one size fits all' worming program.

## Your Newborn Foal



Now that the foaling season is in full swing, we would like to highlight the importance of newborn foal checks. We recommend that all foals and their mum's are examined within the first 12 hours of foaling.

The mare will be assessed for any injuries sustained during foaling and any post-foaling complications.

It is **ESSENTIAL** that the mare passes her placenta (afterbirth) within the first few hours after foaling. Please keep the placenta to one side so that we can examine it. Any retained placenta can cause life-threatening problems for the mare and needs emergency attention.

The foal will be examined to detect any congenital defects (present at birth) and advice given where appropriate. Injections of Tetanus Antitoxin and antibiotic will be given to support the foal while it acquires immunity from the mare's colostrum (first milk). Two further antibiotic injections may be dispensed to be given on days 2 & 3 after the birth. A preventative enema may be given to prevent meconium (first poo) retention.

It is **VITAL** for the foal to receive colostrum within the first 8 hours of life.

If there is any doubt as to whether the foal has taken enough colostrum a second visit is recommended at 48 hours when a blood sample will be taken to check for adequate levels of antibodies in the bloodstream. If they are too low the foal becomes susceptible to life threatening infections and a plasma transfusion may be indicated. Insurance companies usually need evidence of adequate antibody levels before insuring the foal.

## Recurrent Airway Obstruction (RAO) and Inflammatory Airway Disease (IAD)

Respiratory disease continues to be a major problem in horses from aged ponies to young racehorses. The two important conditions frequently encountered are Recurrent Airway Obstruction (RAO) (formally known as Chronic Obstructive Pulmonary Disease (COPD)) and Inflammatory Airway Disease (IAD).

### RAO

This condition is most common in middle-aged and older horses. The first clinical signs are occasional coughing and exercise intolerance, progressing to severe coughing bouts and increased respiratory rate and effort. Chronic cases often develop a 'heave' line due to enlargement of the abdominal muscles recruited for the additional breathing effort.

RAO is thought to be caused by a specific allergic reaction (hypersensitivity) to inhaled allergens (usually dust and moulds from feed stuffs and bedding). Recent evidence suggests that affected horses have an exaggerated inflammatory response to environmental conditions that may only cause mild reactions in normal horses. The inflammatory reaction causes an accumulation of mucus and inflammatory cells with swelling of the tissue lining the airways. This results in airway obstruction and over time leads to chronic thickening of the airway.

### IAD

This term is classically used to describe lower airway inflammation in young racehorses. It has been reported that up to 80% of racehorses are affected at some point during their first year of training. More recently non-infectious IAD is now being recognised in horses of all ages and disciplines. In contrast to RAO, horses with IAD do not show any signs of systemic illness or respiratory distress at rest. In most cases the only indication of a problem is reduced exercise tolerance with some horses showing a prolonged recovery time after fast work and an occasional cough.

The cause of IAD is likely to be multifactorial. Infectious, immunological and environmental factors have all been proposed. In young horses bacterial infections are recognised as important components but these infections are less common in older horses with IAD. Viral infections can cause a change in the normal respiratory defence mechanisms but are not thought to be primarily responsible for IAD.

### Investigation of lower respiratory tract disease

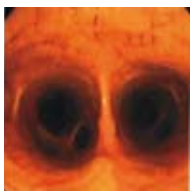
Although the signs associated with RAO may be easily detected during a clinical examination additional diagnostic procedures are often required and are usually essential for diagnosis. Routine blood tests are frequently unrewarding.



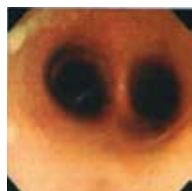
The hallmark of RAO and IAD diagnosis is an endoscopic examination of the respiratory tract and analysis of respiratory secretions collected (figure 1).

**Figure 1: Mike and Michelle performing an endoscopic examination**

The gross appearance of the trachea (windpipe) can be assessed down to where it splits, a region known as the carina. In chronic cases of RAO with airway remodelling this normally sharp region can become thickened and appear blunted (figures 2 and 3).



**Figure 2: Normal endoscopic appearance of carina.**



**Figure 3: Blunt carina indicative of airway inflammation.**

Mucus accumulation is seen in horses with RAO and IAD, sample of which is usually collected via the endoscope using a catheter and saline to wash the trachea. Bacterial culture and examination of the Tracheal Wash sample under the microscope allows us to measure the amount of inflammation present in the lungs. A lot more inflammatory cells are seen in RAO and IAD.

### Treatment and environmental control

#### RAO

The mainstays of treatment are the use of bronchodilators to reduce respiratory distress and steroids to reduce airway inflammation. The traditional route for administration of these drugs is intravenously during the acute stages followed by oral medication.



More recently these drugs have become available in inhalation preparations for horses. Inhalers (similar to those used by human asthmatics) are attached to a delivery system that is placed over the horse's nostril (figure 4). This mode of administration has several advantages over the more traditional approaches including the direct delivery of the drug to the affected airways and the reduction in therapeutic dosage leading to a reduction in potential side effects.

**Figure 4: Horse receiving inhalation therapy**

Also pivotal to the management of RAO is environmental control.

This aspect of treatment is as important as the medical therapy and in some cases it is enough to resolve the clinical signs on its own. Every effort should be made to reduce the production and exposure to inhaled allergens. Low dust shavings or paper bedding should be used in conjunction with soaked hay or haylage. It is important to appreciate that even brief exposure to allergens can induce inflammation in these cases that may remain for several weeks. Routines such as removing the horse from the box whilst mucking out and keeping feed and bedding stores separate from the stable block area are important.

#### IAD

The aim of treatment in these cases is to reduce the airway inflammation. Since the cause of this inflammation can vary between horses the treatment regimes must be specifically tailored to affected horse(s). The results of the Tracheal Wash analysis discussed above will help in the formulation of an affective treatment plan. Most cases are treated with antibiotics, anti-inflammatories and/or bronchodilators. Environmental management, as outlined above, is also important. In general medical treatment should be considered a short term measure while environmental improvements are instigated.

### Summary

Both RAO and IAD are respiratory conditions characterised by increased levels of mucus and inflammatory cells in the airway secretions. The clinical signs may be obvious in RAO cases with pronounced respiratory compromise at rest. In contrast IAD cases often don't show signs unless undergoing fast work, showing only a mild reduction in performance.

Academically there is still debate as to whether RAO and IAD are two separate conditions or the extremes of a single airway inflammation syndrome. However, the mainstay of treatment for both conditions is similar and the use of endoscope can aid specific regimes for the affected horse.