ROSSDALES HERTFORDSHIRE
13 Weston Barns, Weston, Hertfordshire SG4 7AX
www.rossdalesherts.com

DIAGNOSING POOR PERFORMANCE

By Susanna Ballinger MRCVS

Problems relating to poor performance or loss of performance are not clear cut and can present in a variety of ways.

Typically, clients may say: "Why can't my horse... bend right? Jump a double? Work through from behind Keep going for the whole lesson? "

It is important initially to rule out potential simple issues such as ill fitting tack, poor or inappropriate diet for the level of work, training problems and limitation of the horse, or simply a lack of fitness. However, frequently there is an underlying cause which may not be immediately obvious but requires investigation to establish its origin. Once this is determined then a decision can be made regarding appropriate treatment to return to the correct level of performance.

Poor performance in horses (or not attaining the desired level of performance), commonly can be attributed to orthopaedic (bones, joints and muscles), cardiovascular, respiratory or metabolic diseases. Many horses and ponies develop low grade underlying orthopaedic disease as they get older, but are able to continue to do their normal work. When there is resistance to performing a dressage test or repeat refusals when show jumping, the most common underlying factor is lameness.

Observing a horse trotting on a hard surface can often reveal a subtle lameness

Fig 1

Lameness

Frequently the rider reports the horse to be a 'bit stiff', or that it has been treated repeatedly for a sore back. When examined by the vet, lameness is often evident. Evaluation includes examination trotting in hand and lungeing, but in many cases it is also important to watch the horse being ridden. If there isn't any obvious problem, asking the horse to undertake its normal discipline can reveal lameness – for example, a dressage horse that cannot perform half pass on the left rein but appears normal on the right rein. Often trotting on a circle (Fig 1) on a hard surface can reveal a subtle lameness, particularly if the lameness involves the front feet. With subtle problems, in addition to careful palpation, nerve blocks may be required to pinpoint the problem. Many of the lamenesses causing poor performance are bilateral (evident in both pairs of legs). Even though it may initially appear that only one leg is affected, when this is anaesthetised and the horse is sound on that leg, there will be lameness evident on one or more of the others.

Following localisation of the problem, x-rays or ultrasound scans may need to be taken to achieve a diagnosis. Sometimes it is also necessary to do an MRI scan or gamma scintigraphy (bone scan) to gain further information if other methods have not ascertained a diagnosis.

Low grade orthopaedic conditions that may not appear to cause overt lameness include osteoarthritis. Some of the most common examples are 'bone spavin' (osteoarthritis of the tarsometatarsal joint of the hock), ringbone around the pastern and foot pain including navicular syndrome. Soft tissue problems, especially inflammation of the high suspensory ligaments (proximal suspensory desmitis), are frequently encountered, especially in horses that work regularly on an artificial surface.

Back problems

Back pain is commonly thought by non-veterinarians to be a primary problem. Most sore backs are in fact caused by lameness issues located in the legs. As the horse is not moving correctly, the back muscles become inappropriately loaded and sore. Once the underlying problems are treated, the back soreness will often settle. It can be helpful to have a qualified physiotherapist or animal-trained osteopath treat the horse at this stage to aid rehabilitation. Horses with sore backs can present as being resistant to working, bending or jumping, but this is less common. Impingement of the dorsal spinous processes ('kissing spines') should be considered when the back remains sore despite the treatment of other underlying problems.

Cardiovascular problems

Cardiovascular poor performance can be less obvious to the owner. The horse might present as tiring easily – for example, it may not able to fulfil a day's hunting despite perceived fitness, or it simply may not be able to keep going for the whole lesson. A blood sample (Fig 2) can prove invaluable to assess the general wellbeing and screen for underlying infectious or metabolic disease. Chronic virus infections are quite common, showing up on a blood profile (Fig 3) as a subnormal white cell count with or without anaemia. The post-viral fatigue syndrome can result and the horse can take a long time to recover.

Fig 2

Blood samples are sent to our laboratory for screening.

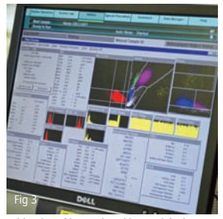


Fig 3

A blood profile, analysed by qualified laboratory technicians, may suggest viral or bacterial infection

Heart murmurs might develop over a period of time or be sudden in onset. These stop the heart pumping efficiently due to leakage from valves and can result in its enlargement because the muscle is overworked. The circulation of oxygenated blood around the body becomes impaired and this causes the horse to tire quickly. Initial assessment is to auscultate the heart at rest and after exercise with a stethoscope. Often an ECG or ultrasound scan will be required to determine the cause (Fig 4). Frequently assessment pre and post exercise is needed as not all heart conditions show up at rest.

Fig 4

An ECG may be required to determine the cause of a heart murmur

Respiratory disorders

Respiratory causes of poor performance include inflammation of the lower airways or laryngeal paralysis. Chronic lower airway inflammation can present as heavy breathing during exercise, nostril flaring and coughing. Harsh lung sounds are often evident on auscultation but diagnosis may require endoscopy of the upper respiratory tract. This may include a tracheal wash to take a sample of the fluid from within the windpipe.

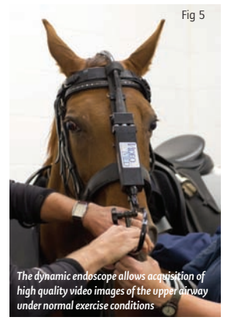


Fig 5

The dynamic endoscope allows acquisition of high quality video images of the upper airway under normal exercise conditions

Paralysis of the larynx, the opening to the trachea, obstructs airflow and can cause the horse to make a whistling noise when exercised. In some extreme cases, the horse resents working on a contact as this bends the neck and reduces the airflow.

Other upper airway problems can include dorsal displacement of the soft palate, which could require endoscopic evaluation of the larynx whilst being exercised. In recent years, dynamic endoscopy has been developed to allow the acquisition of high quality video images of the upper airway whilst the horse is being ridden (Fig 5).

Metabolic conditions

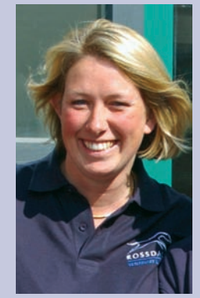
Underlying metabolic problems can be frustrating to diagnose. Clear and consistent obvious signs are often absent. Early onset Cushing's disease (pars pituitary intermedia dysfunction) results in a lifeless, unenthusiastic horse and low grade liver disease may present with the horse resenting grooming of the abdomen and not going forward. Both can be diagnosed by a blood sample and once recognised can be managed.

Stiffness and resenting exercise can be due to muscle problems. This can be a low grade tying up (azoturia) or in some cases a storage myopathy, where the muscles inappropriately utilise the nutrients given in the food. Blood samples are often useful or a muscle biopsy might be needed to provide a definitive diagnosis.

Gastric ulceration, which can cause teeth grinding, tail swishing, headshaking and a poor coat condition also leads to loss of performance.

In summary, there is a large variety of causes for poor performance. A careful evaluation involving a full clinical examination, supported by blood tests or advanced diagnostic procedures, may be required to reveal underlying problems and provide an accurate diagnosis. Many of these cases can be treated and managed to allow the horse to return to its previous level of use and competition. Sometimes, expectations are even exceeded!, Never ignore a minor issue! Prompt investigation, diagnosis and treatment is likely to yield the quickest and best long term outcome.

Vet Profile



Name: Susanna Ballinger
Qualifications: BVSc MRCVS
Year of Qualification: 1998

Susanna qualified from the University of Bristol in 1998. She subsequently spent 18 months as Assistant Trainer and Veterinary Surgeon to Mark Johnston Racing in Middleham, followed by 4 years as a veterinary surgeon at Peter Scott Dunn's Equine Clinic in Berkshire. She joined C P Harris & Associates in 2004, where she was Senior Associate and built up close relationships with her clients. In April 2012, the practice merged with Rossdales Newmarket and was renamed Rossdales Hertfordshire.

Susanna has become a partner at Rossdales Hertfordshire and now heads the team under its new identity.

Susanna's role involves all aspects of equine practice and she is happy to advise clients on routine healthcare and management of their horses and ponies. She is particularly interested in lameness in all levels of equestrian activity, from family ponies to top competition horses.

Her equine interests outside work include Thoroughbred flat racing and breeding.

A WEEK IN BRIEF

Monday

As an 'ambulatory' vet, I visit my clients at their own yards. First call is to see a top dressage horse with an ongoing respiratory condition, which has hindered its ability to compete at Grand Prix level. He is endoscoped and a tracheal wash is taken. Treatment will be decided when the results are received from our laboratory. Later I meet a farrier to examine and x-ray a show pony with low grade laminitis (Fig 6).

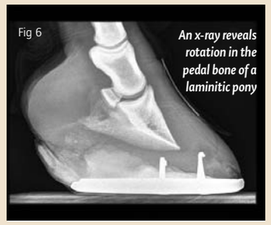


Fig 6

An x-ray reveals rotation in the pedal bone of a laminitic pony

Digital radiography provides us with images that can be viewed immediately and the farrier and I discuss with the owner how the pony will be shod to rectify the foot problems. I recommend a programme of restricted exercise and a strict diet. With many shows planned this season, it is important to get him back into action as soon as he is sound.

Tuesday

I am up early and on the Kent coast by 8am to undertake a pre-purchase examination (vetting) of a young warmblood gelding that will have a career in showjumping. It passes the vetting with flying colours and the new owners are delighted. I will enjoy monitoring progress as he moves up through the grades. Back to Hertfordshire to attend some routine calls, including vaccinations and rasping teeth. The results of yesterday's tracheal wash reveal a respiratory infection that will be treated with a course of antibiotics (Fig 7).

Fig 7

Samples can be cultured in the laboratory to diagnose bacterial infections

Wednesday

The day begins with a standing castration of a four year old colt. The clients are new to the practice and I am pleased that everything goes like clockwork. I am then called to attend an emergency colic where the horse is lying down and rolling. Understandably, this is always a fraught time for owners, but fortunately it resolves with on yard medical treatment. Wednesday is my duty night and fortunately this evening is quiet and I catch up on some paperwork.

Thursday

One of the benefits of the job is the interaction with people and although being a vet is perceived as an animal job, it actually involves dealing with the owners just as much. Thursdays are spent with some regular and large yards and it is great knowing your clients and their horses well. Lameness is my special area of interest and I have several work-ups to carry out on the yards, involving nerve blocks, x-rays and scans out.

Friday

The day starts on a sad note when a much loved, elderly family pony has to be put to sleep. He had developed end stage liver disease and was not only unwell but was unaware of his surroundings and very wobbly, making him a danger to his owners. It is never easy to give bad news to a client, even when it is in the best interests of the horse or pony and is a very sad time. I then attend a few routine calls – it is nice to do these after the morning's events. Late afternoon, a call comes in to attend a mare with a wound from a kick injury to the lateral cannon bone. This proves to be serious and x-rays reveal a fractured splint bone (Fig 8). I'm concerned that the tendon sheath has been compromised, which will require emergency treatment to flush the wound to prevent infection. The owners agree for me to refer her to our hospital at Newmarket, where surgery is undertaken to remove the fragments of bone and the tendon sheath is flushed. The prognosis is good and the mare will be home in a few days.

Fig 8

X-ray showing a fracture to the splint bone (arrowed)

ROSSDALES HERTFORDSHIRE

Rossdales Hertfordshire
Office and dispensary (no horse admissions)
13 Weston Barns, Weston, Hertfordshire SG4 7AX
Tel: 01462 790221or 01992 554436 (24 hours)
Email: office@rossdalesherts.com

Rossdales Equine Hospital & Diagnostic Centre
(All horse admissions)
Cotton End Road, Exning, Newmarket, Suffolk CB8 7NN.
Tel: 01638 577754 (Office hours) Tel: 01638 663150 (24 hours)
Email: hospital@rossdales.com