RIVERSIDE EQUINE VETS

2 Scotter Road
Bishopstoke
Eastleigh
Hampshire
SO50 6AJ

Equine: **02380 620 605**
Fax: 02380 614 725
Email: enquiries@riversidevets.co.uk

24hr Emergency Service Available

Equine Cushing 's Disease (Pars Pituitary Intermedia Dysfuction- PPID)

Equine Cushings Disease is a common disorder involving disrupted regulation of the pituitary gland. As it is specifically the *pars intermedia* of the pituitary gland that is affected, the condition is more precisely referred to as pituitary *pars intermedia* dysfunction (PPID). The gland enlarges and secretes excessive amounts of a hormone called Adrenocorticotropic hormone (ACTH) which has a vriety of effects on the body leading to the clinical signs detailed below. PPID used to be thought of exclusively as an old horse disease but now has been found in horses as young as 10 years old. It is however more common in older equines. Any gender or breed can be affected but more cases are seen in ponies than horses.

Clinical Signs

- **Excessive or abnormal pattern of hair growth**
  This is a very common finding, and can progress from a slightly delayed shedding of the winter coat to having a thick hair growth within a month of clipping at anytime of the year. It is a common misconception that if your pony has shed its winter coat it cannot have Cushings. Sadly this is not the case as a proportion of cases have no changes to their coat.
- **Laminitis / "Laminopathy"**
  Laminitis is also a frequent feature. It is also common to see changes in the horn growth, 'laminitic rings' that are suggestive of laminitis but have a complete absence of a clinical laminitic history The term laminopathy has been used to describe such cases.
- **Excessive drinking**
  This is a reasonably prominent feature of many cases. However it is sometimes hard to recognise especially if your horse is kept out in the field or has an automatic watering system in the stable.
- **Lethargy**
  This is commonly present but not always well recognised. It is often put down to the pony 'just getting old'. However we frequently see a return of energy and zest for life upon starting treatment.
- **Excessive sweating**
  A fairly frequent clinical sign.

- **Fat redistribution**
  Horses can get a general potbellied appearance, and also some fat redistribution around the eyes. Affected horses can get bags above and below their eyes and the 3rd eyelid becomes more prominent.
- **Neurological signs**
  These have rarely been reported in PPID cases, presenting with blindness, collapse or seizures presumably associated with increased pressure on the base of the brain associated with the expanding pituitary gland.

RIVERSIDE EQUINE VETS

2 Scotter Road
Bishopstoke
Eastleigh
Hampshire
SO50 6AJ

Equine: **02380 620 605**
Fax: 02380 614 725
Email: enquiries@riversidevets.co.uk

24hr Emergency Service Available

- **Susceptibility to Infection**
  PPID can retard the immune system making equines more susceptible to infections. This combined with the tendency to sweat excessively can lead to skin infections in particular but mastitis, sheath infections and pneumonia have also been reported. Horses with PPID have an increased susceptibility to intestinal worms so should be monitored regularly with fecal worm egg and wormed accordingly.
- **Weight loss**
  Although weight loss might occur, this is generally not marked unless diabetes mellitus develops or further unrelated issues arise such as dental disease etc...

Diagnosis

The preferred test is the measurement of blood plasma ACTH concentration. This is interpreted in relation to the mean average ACTH level of a group of normal horses at the same time of year, as horses naturally have a peak in ACTH level in the autumn.

If a horse comes back with a result that is only just below the normal threshold and is exhibiting clinical signs so the index of suspicion for PPID is still high, we can stimulate the pituitary gland by injecting the horse with a hormone called Thyrotropic Releasing Hormone (TRH) Subsequent measurements of the level of ACTH released by the pituitary helps distinguish normal from abnormal. This helps us to diagnose a horse suffering from PPID that would otherwise have been missed by the original screening blood test.

Treatment

Pergolide is the preferred treatment for PPID. How effective this is varies between individuals. We can judge the effectiveness by monitoring plasma ACTH and the dosage can be adjusted until the level of ACTH returns to normal. It is common for there to be the need for dose increases over time.

Equine PPID cases are frequently laminitic, suffer from Equine Metabolic Syndrome (EMS) and are possibly immunocompromised, so other aspects of their care need to address the individual issues. Regular clipping of a thick coat, maintenance of a healthy weight, regular dental checks and excellent farriery care are all paramount to keeping PPID horses and ponies in good health.