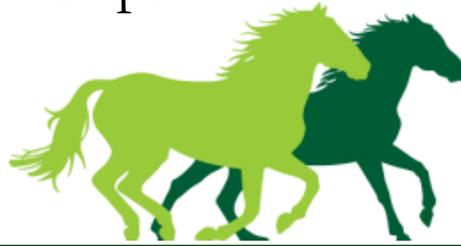


**Damory Veterinary  
Clinic**

Damory Lodge  
Edward Street  
Blandford Forum  
Dorset  
DT11 7QT

Tel. 01258 452626

# Damory Veterinary Clinic Equine Department



## Equine Cushings Disease (ECD)

### What is ECD?

It is essentially a chemical imbalance in the brain (somewhat similar to Parkinson's disease) resulting in lowered levels of dopamine which normally control the pituitary gland. The net result is an enlarged pituitary gland producing an array of chemicals responsible for the signs. This probably occurs as part of an ageing/degenerative disorder

### What are the clinical signs?

Some are classic and well recognized:

- Thicker, more curly hair coat that may not be completely shed in the Summer
- Increased fat deposits around or above the eyes
- Chronic or unexplained laminitis

Others are more general:

- Weight loss and 'pot belly'
- Excessive thirst and frequent urination and/or a wetter bed
- Reduced resistance to infections (diarrhoea, coughs and snotty nose etc)



Generally speaking elderly ponies are more likely to be affected.

### How do I know if my pony/horse has ECD?

#### *Clinical Signs:*

These can be very suggestive but are not always present early on in the disease. However a pony with a very thick curly coat almost invariably will have ECD.

#### *Simple blood tests:*

Unfortunately there is not a simple test that is completely accurate. A general 'screen' can be very helpful to rule out other similar diseases. *ACTH* is a chemical produced by the pituitary gland, and many horses with ECD have increased levels. However as false positives are common, it most useful in suggesting a horse doesn't have ECD if the result is negative.

#### *Dynamic tests:*

The most useful test for diagnosing ECD is the Low Dose Dexamethasone Suppression Test (LDDST). A blood sample is collected around 5pm and a low dose of the corticosteroid *dexamethasone* is injected intramuscularly. A second blood sample is then collected at about 12pm the next day and concentration of the hormone *cortisol* measured from both samples. ECD is diagnosed when the dexamethasone fails to 'suppress' or decrease the blood cortisol concentration.

The LDDST is not completely reliable; about 70-90% accurate. It is however useful in early cases of ECD when a pony may suffer bouts of laminitis but have no other signs. Although corticosteroids can cause laminitis in some instances, recent research has shown that the LDDST is a safe procedure.

Other dynamic tests have been formulated, but they either offer no better accuracy or use drugs that are no longer available. The 'perfect' test would perhaps involve either a brain scan or biopsy, neither of which are readily available for our equine patients! New research is looking at a simple muscle biopsy instead.

### **Is there anything I can do?**

#### *Medication:*

Pergolide is a drug similar to dopamine and hence re-establishes the chemical imbalance in the brain. It is licensed for treating Parkinson's disease in man. Despite being effective and relatively affordable for horses, it has been withdrawn from the market due to concerns that it may cause heart problems in man. For the foreseeable future therefore it is no longer available.

Cabergoline is a drug similar to pergolide that is also used in man but as yet untested in horses. Research in the future may give some insight into its usefulness. There are 2 other drugs available currently:

- a) Periactin: this is generally less effective than pergolide and costs about £5 per day!
- b) Metopirone: this helps prevent laminitis but will not alter the coat changes, make a pony brighter or help it to put on weight. It costs about £2 a day.

#### *Management:*

Most patients are elderly and need lots of TLC. For example good quality dentistry is important for comfort and maintaining weight.

ECD reduces the horse's immune system so vaccination and de-worming are all particularly important. Those affected tend to succumb to infections more easily.

Careful attention should be given to the increased risk of laminitis, with strict grazing management. High risk times include when the grass grows very quickly (Spring and Autumn flushes) and during times of stress to the grass (eg. when it is frosty or there is drought).

If the coat becomes very shaggy, a belly clip can help to reduce sweating and make the pony feel more comfortable.

### **What is the prognosis?**

In the short term many ponies with ECD have happy lives provided that laminitis is prevented and their weight maintained. The condition is not painful. In the longer term though, the disease will progress slowly and it may be more difficult to keep weight on, or laminitis attacks could be either more frequent or more severe.