



## **Atypical Myopathy**

It usually occurs in horses kept at pasture, often affects several individuals within a group and can be seen repeatedly on the same property. Recently, hypoglycin A, a toxin present in the leaves and seeds of sycamore trees has been shown to be the cause. In addition the sycamore seedlings may also contain the toxin and this may explain the cases seen in springtime.

### **Clinical signs**

The *Myopathies* are a group of diseases which affect the horse's muscles. The most common myopathy seen in the UK is azoturia or 'tying up' which usually presents as stiffness and reluctance to move following exercise.

In contrast, in most horses affected by atypical myopathy, clinical signs are severe with damage to the muscles controlling respiration and movement taking place extremely rapidly. Sometimes early signs may be confused with colic or laminitis and, occasionally the progression of disease is so rapid that horses are found dead without prior signs of ill health.

More commonly symptoms include: muscle weakness, stiffness, depression, sweating, muscle tremors, discoloured urine, high heart rate and difficulty breathing. Damage to the kidneys and acute kidney failure usually results as the breakdown products of muscles reach very high levels in the blood stream.

### **Diagnosis and Treatment**

Diagnosis is based on clinical signs and blood tests, which reveal marked increases in muscle enzymes indicating severe muscle damage. No specific treatment is available and affected horses require intensive care, involving intravenous fluid therapy, multivitamin injections, anti-oxidants and pain relief. This is best carried out in a hospital environment although transport is not always possible. Unfortunately recovery rates from atypical myopathy are poor and up to 90% of affected horses die or are euthanased.

### **Prevention**

It is best to avoid grazing on pasture where there is a possibility of contamination with sycamore seedlings especially during high risk times of year (Autumn and Spring). The levels of hypoglycin A can vary due to differing climactic conditions such as dry conditions and compacted soil.

Therefore it is possible for horses to develop the disease despite having grazed affected pastures previously without signs of illness.

If complete avoidance is not possible, reducing risk levels by fencing off areas where leaves and seeds have fallen and/or removing seeds is advisable. Providing supplementary forage may also help to limit ingestion of sycamore.

Following an outbreak, it is important to remove all other animals from pasture. Blood tests can be used to monitor and pick up disease before symptoms occur when treatment is likley to be more favourable.