



## **Information about Synovial Sepsis**

Your horse has been referred to B&W Equine Hospital for further investigation due to concerns regarding synovial sepsis. This information sheet is designed to help provide you with information about synovial sepsis and what we do to try and determine if your horse does have synovial sepsis and how we can treat it.

### **What is synovial sepsis?**

This is when there is infection within a structure that contains synovial (joint) fluid. Structures that can be involved include:

- Joints
- Tendon sheaths - sleeves of fluid through which tendon(s) run
- Bursa – a bag of fluid which contains synovial fluid

### **How does synovial sepsis occur?**

In the adult horse this usually results from direct penetration of the synovial structure following a wound.

- Sometimes no wound is clearly visible e.g. blackthorn injuries.
- Often the wound can be very small, or not dramatic to look at, but it overlies a joint, tendon sheath or bursa.
- Foals can get synovial sepsis from infection spread from the bloodstream. This is sometimes called 'joint ill'.

## What are the signs of synovial sepsis?

The signs we look out for include:

- A wound overlying a synovial structure
- Swollen and painful synovial structure
- Severe lameness
- Fluid leaking from a wound overlying a synovial structure

## How do we diagnose if synovial sepsis is present?

If your horse is admitted to B&W Equine Hospital for investigation of a suspected synovial sepsis we will:

- Take a history relating to how any injury has occurred and time frames of this, any lameness etc.
- Examine your horse:
  - > Assess lameness
  - > Assess pain on palpation/range of movement of the limb
  - > Clip and clean the hair around the wound
  - > Insert a probe/finger into the wound to assess where it goes to
  - > Take a sample of synovial fluid from any synovial structures (joint, tendon sheath, bursa) that we are concerned about. This is done as a sterile procedure.
    - » If a synovial structure is infected, then we see changes in the consistency of the fluid:  
Normal = clear, slightly straw coloured and viscous (oily)  
Septic = cloudy and runny
    - » We can often tell from looking at a sample if it's infected but we will also run the sample through our lab to confirm the diagnosis and get an indication of how much infection is present.
    - » We will also try and culture bacteria from the sample to ensure that the antibiotics we are using are appropriate.
- We often perform ultrasound examination to assess the surrounding soft tissues and bone surfaces as well as looking for foreign material.
- We often take x-rays to assess the adjacent bony structures to see if there is any bony damage and/or foreign material.

## How do you treat synovial sepsis?

- If we diagnose that your horse does have a septic synovial structure we are likely to suggest surgery to try and overcome this infection.
- If an infection within a synovial structure is not treated this usually becomes a life threatening problem.
- The 'gold standard' treatment for synovial sepsis is arthroscopy.

# What to expect

- Arthroscopy is a keyhole procedure, performed under general anaesthesia which enables us to look inside the joint/tendon sheath/bursa and:
  - > assess damage
  - > remove foreign material and inflammatory tissue
  - > flush large volumes of sterile fluid through the structure to help flush out any infection and reduce inflammation
- If arthroscopy is not an option, we can flush the joint under standing sedation. However, this is not as effective as arthroscopy and it does not allow visualisation of any trauma/foreign material etc.
- Occasionally we will just place antibiotics into the synovial structure without any form of joint flush but this is not to be recommended if surgery is an option.
- We may not necessarily carry out surgery immediately but often wait until the following day, especially if your horse is admitted at night time. Studies have shown there is an advantage to waiting as it reduces the risk of anaesthesia to the horse by allowing time for the horse to settle and be starved appropriately prior to surgery.

## What happens post operatively?

- Your horse will remain in the hospital for at least a week post-operatively. You are very welcome to visit during this time.
- We will keep you updated on a daily basis as to how your horse is doing and the daily plan for him/her.
- We will monitor him/her for signs of lameness.
- A bandage will have been placed at the time of surgery and this will be changed at appropriate time intervals, usually every 24-72 hours.
- Your horse will be maintained on routine antibiotics during his/her stay in the hospital.
- We may also place further antibiotics into the affected synovial structure.
- The antibiotics may be changed if necessary following any results from culturing and bacteria from the joint and the sensitivity of these bacteria to different antibiotics\*.
- When we send your horse home, we will provide you with instructions regarding:
  - > when to change the bandage
  - > when to arrange suture removal
  - > when to start walking exercise
  - > when to arrange a re-examination

# What to expect

## What is the likely outcome?

- If the synovial sepsis is eliminated and there is no significant injury to any important tissues (e.g. bone, joint surface or tendon) then your horse/pony should make a full recovery.
- If there is some injury to underlying structures this may reduce prognosis and/or increase rehabilitation times.
- If the infection is not controlled, then options include a repeat surgery or euthanasia will need to be considered.
- The greater majority of horses/ponies with synovial sepsis do very well, especially if diagnosed promptly.

**We hope this provides you with the information you need to understand what we're doing and why we are doing it, at a time when we appreciate you may well be worried and upset. If you have any concerns, please don't hesitate to ask us whilst you are here, at anytime while your horse/pony is with us or following discharge on 01453 811867 or [enquiries@bwequinevets.co.uk](mailto:enquiries@bwequinevets.co.uk).**