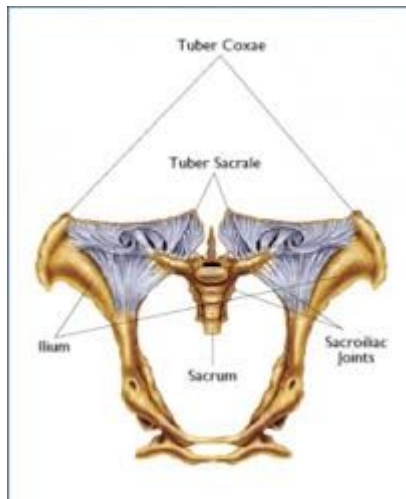


Managing Equines with chronic sacroiliac dysfunction: incorporating suggestive exercises

By Gemma Key Veterinary Physiotherapist Adv Cert Vet Phys, Cert Ed Clinn Acc
Middx, MRAMP. MIRVAP

Sacroiliac disease or dysfunction is a very complex issue when it comes to diagnosing and managing this condition within the equine patient.



The Anatomy

The Pelvis is made up of three bones which are fused, the Ilium, the ischium and the pubis. The lower part of the horses back is made up of 5 fused vertebrae, called the Sacrum. The sacroiliac joint is the synovial articulation between the ventral wing of the ilium and the dorsal wing of the sacrum. The role of the sacroiliac joint is to transfer forces and propulsion from the hindlimbs to the spine and to add stability. This allows the horse to drive forward and supports the caudal vertebral column. The sacroiliac joint is supported by the ventral, dorsal, sacrosiatic and interosseous ligaments.

Causes of Sacroiliac disease or dysfunction

There can be a number of reasons as to why the equine patient develops a sacroiliac dysfunction. These can include.

- Trauma such as falling at high speed, falling during transportation, rearing and falling over backwards, sitting down like a dog, pelvic trauma from injury inflicted by other equines.
- Chronic repetition placing stresses on the joint and associated ligaments such as racing, show jumping, eventing. Noted in performance horses.

Presenting Signs

- Reluctance to go forward

- Decrease in performance
- Lack of impulsion
- Stilted and stiff canter with bunny hop action
- Intermittent hind limb lameness (not always present)
- Poor lateral work
- Poor hindlimb engagement
- Bucking
- Refusing fences or rushing
- Unequal hindlimb musculature
- Pain on palpation around the associated area.
- Heat/inflammation if more of an acute trauma
- Can be difficult for the farrier.

Diagnosis

The main two diagnostic tools used in the case of SI dysfunction are scintigraphy bone scanning and rectal ultrasonography scanning. The function of these are to highlight any changes in the ligament fibre patterns such as stretched, torn, thickened and any bony changes such as arthritis.

It must also be remembered these horses may well be altering the way they move due to lower limb orthopaedic pathology, hence putting strain on the sacroiliac region and causing the ligaments to be put under strain. This can include Stifle pain, Tarsocrural pain, proximal suspensory pain and these need to be ruled out at the same time, particularly if the horse is presenting with a hindlimb lameness.

Treatment

If dealing with an acute injury, the most important thing is rest and look to reduce any inflammation present. This would normally present with an acute onset and heat/inflammation around the area. Once any risk of pelvic fracture has been ruled out, then you can start with intensive physiotherapy. The short term goal is pain relief, reduce inflammation and maintain function and stability. The more long term goal is to prevent the acute injury from becoming a chronic dysfunction.

If a chronic dysfunction is apparent treatment can consist of the below

- Pulsed Electronic Magnetic Therapy
- Intra articular medication to support the joint and associated ligaments and provide pain relief
- Hwave therapy can be useful for pain relief and muscle stimulation. I normally find 4 sessions a week apart can be useful. Particularly in horses that do not receive corticosteroid medication into the area
- Devising a core training and strengthening routine, particularly suited to encourage the horse to improve their stability and support of the vertebral column and pelvic region.

- Stretch routine including baited stretches, it is worth also making sure the horse does not have any cranial, cervical abnormalities as I am also seeing more horses with a link between cervical abnormalities and SI dysfunction
- Look at amino acid supplement such as Equitop Myoplast or Optimuscle to aid the musculature to support the ligaments and bones within the pelvic region. This works well alongside a designated exercise regime.

Case Study



George 11yo Ex Racer 16.1hh TB Gelding. Came out of racing as an 8-year-old and was then passed from home to home in poor condition.

Was purchased by my client 9 months ago in very poor condition, underweight, under muscled, crib biter.

Initially presented with an inability to put weight on, right hind circumduction. Lower thoraco lumbar discomfort, poor hoof condition, loaded thoracic sling with very hypertonic musculature and significant over development of the ventral musculature.

Did not like having his saddle on and was initially suspected of having Equine Gastric Ulcer syndrome although he scoped clear. He was investigated by their veterinary surgeon who diagnosed George with a mild right hindlimb lameness with mild radiographic changes in his distal tarsal joint. However, scintigraphy and rectal ultrasound scanning revealed wear and tear in the ventral aspect of his SI, with bony changes and ligament desmopathy, more noted on the left side.

Treatment Plan

- Intra articular medication of the SI joint with corticosteroids
- Intra articular medication of the distal tarsocrural joint

- Remedial farriery to give a little more lateral support to aid the foot and limb placement
- Pulsed magnetic field Therapy daily over the SI region
- In hand ground work consisting of long reining, incorporating a core equi band/TheraBand to aid core stability and abdominal recruitment. Starting off with 15 minutes daily followed by the following stretch regime, building up and increasing time. Avoid too much circle work initially.
- Lateral Flexion stretches, side to side, to point of shoulder, to fetlock, to girth line and behind last rib. Hold week one up to 5 seconds, building up to 20 seconds by week 3. Ideally repeating 3 or 4 times a week
- Dorsal Ventral stretches, head to between fetlocks and also between carpus. Again, hold for 5 seconds initially, building up to 20 seconds
- Lumbar Sacral stretches, using hindlimb reflex to encourage George to tilt and hold his pelvis underneath him. Do not use excessive force or quick movement, slow posturally enhancing
- Abdominal lifts by gentle encouraging George to lift his abdomen. I alternate between the lumbar sacral and abdominal lifts
- Gentle weight shifting by rhythmic stabilisation from the sternum to the hind limbs, encouraging George to take a little more weight behind.
- Hacking and introducing some gentle inclines and different terrain work will help. Just be mindful of too much strain on the SI region with too steep an incline and decline in the initial stages. Looking to increase ridden work over the next couple of weeks

- **Pole exercises can include a selection of the below, these will depend on the individual and at what stage of the rehabilitation programme they are at**

-
- 4 walk poles in a line 3 foot apart, start on the ground then build up to raised poles. Reps of 5 each rein
- 4 poles end to end and use them to serpentine and weave over them. You can use shallow loops and large loops over the poles. You can also then add another 4 poles side by side to the other ones, this increases the width angle the horse has to step across
- 5 trot poles 4.5 feet apart. Start on the ground then build up to raised
- 4 canter poles on a large circle on a clock face, so position your poles at 12, 3 6 and 9. You can also then raise sides on these, fairly difficult but build up to it
- Random scattered poles around, so they have to think about where their feet are. Do not spoon feed them too much
- Fan of poles, 5 normally, you can use this to alter your stride length, so narrower end will give you more flexion, wider more extension.
- Christmas Tree creation using poles is a good exercise too.
- Labyrinth making a corridor of poles so the horse has to stop and think so imagine 3 rectangles making like a Z shape. Useful to do in hand with this
- A channel of poles so the horse has to work through them, helps with straightness, start wide then make the channel narrower

- 4 poles in a square then add another 2 poles on a X in the middle of the square. You can walk and trot over these

My main goal for George at present is to increase his muscle mass, his core stability and proprioception and to ensure he is comfortable when asking him to perform any of the above exercises. It must be noted that whilst these are suggestions to aid and enhance recovery, each case is individual and will need to be adapted to suit each horse.

For any further information or graduate mentoring/clinic days please contact me

Gemma Key

Tel 078066 38473 or Gemmakey61@yahoo.com

www.gemmakeyvetphysio.com

