Piriformis Syndrome in canines Tammy Callahan April 12, 2019

The piriformis muscle is located in the pelvic region. It is a small muscle completely covered by the gluteus superficialis muscle. The piriformis muscle arises on the third sacral and first caudal vertebrae. It inserts on the same site as the tendon from the gluteus medias at the greater trochanter of the femur. It is innervated by the first and second sacral nerves.

The purpose of the piriformis muscle is for the extension of the hip joint.

Piriformis syndrome can be a debilitating issue and was not diagnosed until recently in canines.

Most dogs are diagnosed with dysplasia or possibly nerve damage and piriformis syndrome was never really thought of in dogs until recently. Maja Guldberg, DVM, did a study on a dog named Iris. When the study was started, there was little to no information about the piriformis to find. Since the pelvis region on dogs is similar to humans this vet started with what is available regarding this syndrome in humans. After many tests were done to rule out other possibilities in Iris, they came to a preliminary conclusion that it was probably a sciatica issue. The overall cause of Iris' sciatica was constriction of the piriformis muscle causing entrapment of the sciatica nerve. The study did conclude that sciatica and piriformis syndrome does exist in dogs and this was causing lameness and pain for Iris.

Piriformis Syndrome is described as an abnormal condition of the piriformis muscle. Characteristics and signs are due to the entrapment of the sciatic nerve at the greater sciatic notch resulting in spasm, edema and contracture of the muscle causing compression, (entrapment), of the sciatic nerve.

In a flexed position, the piriformis muscle internally rotates and abducts the hip. In the neutral position, the piriformis muscle acts as an external rotator for the hip.

There is no information regarding the piriformis syndrome being breed pacific that I could find. Possibly, now that there is more being done with canines regarding piriformis syndrome, they may find that diagnosis of hip dysplasia could be sciatica/piriformis related in some cases. And possibly more relevant to larger breeds.

In regards to relief from piriformis syndrome. Stretches originally intended for humans were adapted for use on canines. Along with chiropractic adjustments in addition to the adapted stretches and the use of acupuncture it was concluded that dogs can possibly be offered relief from piriformis syndrome and sciatic pain and issues. Massage could also be a form of relief for the piriformis as well, however with the piriformis being completely covered by other muscles and "buried" within the region, it can prove to be

difficult to get to with hands/fingers. These modalities offered relief and a more normal lifestyle for Iris. So in conclusion, it worked.

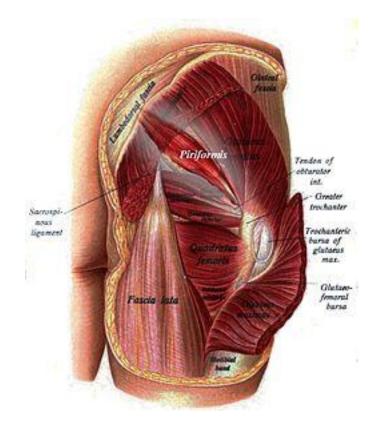
In humans, piriformis syndrome can be very painful and debilitating. It causes lower back pain, hip pain, leg pain and knee pain. Anywhere from a dull ache to shooting pains throughout the lower back, hip, leg and knees is possible. Chiropractic adjustments can possibly help to realign certain areas and offer relief of pressure on the piriformis. The use of heat and ice, certain exercises, walking and stretching can offer relief as well.

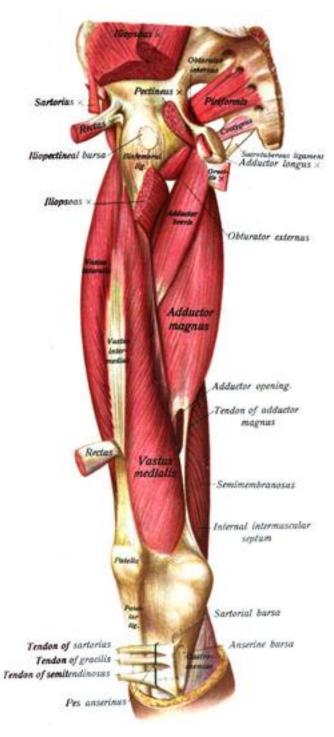
There was not a lot of information available on this topic. However, it seems with the realization that massage, acupressure, acupuncture and chiropractic adjustment it has been found that these modalities can offer relief from pain and it is now more than ever accepted as a useful tool in offering relief as opposed to the use of medications, surgeries and possibly euthanasia as a final decision.

I believe that more and more people are using alternative therapies to create a better lifestyle for themselves and their pets.

Information for this paper was obtained online from a study done by Maja Guldberg, DVM. As well as an informational paper found online that was created for students attending the school of Ojai School of canine massage.

<u>Origin</u>	Sacrum
Insertion	<u>Greater trochanter</u>
<u>Artery</u>	Inferior gluteal, <u>lateral</u> sacral and <u>superior gluteal artery</u> ,
<u>Nerve</u>	Nerve to the piriformis (L5, S1, and $\underline{S2}$)
<u>Actions</u>	External rotator of the thigh
Identifiers	
<u>Latin</u>	Musculus piriformis
<u>TA</u>	<u>A04.7.02.011</u>
<u>FMA</u>	19082





https://en.m.wikipedia.org/wiki/Piriformis muscle