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Speice

Independent Study and Mentorship 1

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Recognition of the Symptoms of Hip Dysplasia

Canine Hip Dysplasia (CHD) is a genetic disorder that has been bred into most large breed dogs such as Golden Retrievers, Labrador Retrievers, and German Shepherds due to poor breeding standards in previous generations. This condition causes a laxity within the acetabulum which allows the grinding of the femoral head and the acetabulum and thus the degradation of the smooth cartilage (Lopez 183). That degradation of cartilage is directly correlated to the early development of Osteoarthritis which can be found in some cases at two years of age (Gatineau 43), ultimately regressing the quality of life that the animal is given.

The prospect for the case review is to allow owners the ability to recognize the symptoms of CHD at a young age to ensure proper treatment for the disorder. It will also inform owners of preventive care that they will be able to take once they become owners. In addition, a brief mentioning of surgical procedures that their pet could become a possible candidate for due to CHD in regards to the procedure, cost, and recovery time.

The symptoms which affect dogs with CHD can vary in severity in regards to the severity of the disorder, and pain tolerance¹. It is always good for owners to have a close relationship with their pet as signs of pain are more recognizable to the owner. CHD symptoms commonly worsen with age and regression of the disorder in many cases however symptoms for CHD are prevalent

¹ Please discuss with your Veterinarian if you believe that your dog has CHD or could develop CHD

throughout a dog's entire life span. It is important for owners to understand the symptoms of CHD prevalent in young dogs. The most distinguishable symptom of CHD in young dogs is a reluctance to play (Lopez 183). Play is an important aspect of young dogs as it allows them to exercise their growing bodies, builds balance, and release pent up energy. A reluctance to play most often means that the puppy is experiencing pain with quick movements such as jumping and running, both movements that put strain on the acetabulum. The second most common CHD symptom found in young dogs is a quickness to fatigue, young dogs will commonly have burst of energy to play and/or run then they will crash (Lopez 183). It may be difficult for first time pet owners or first time puppy owners to distinguish between normal puppy behavior and symptoms of CHD, an simple way to combat this issue is to schedule play dates with other dogs of similar ages and breed size. This will allow the owner to recognize if their pet becomes fatigued at a quick rate in comparison to other dogs. The Bunny Hop gait is quite possibly one of the simplest symptoms to distinguish (Lopez 183). This particular type of gait it when the animal will use both hind legs to walk (more extreme cases) and/or go up the stairs. While walking for long periods of time such as hikes the animal may also take occasional Bunny Hops to alleviate strain on the acetabulums. The last most prevalent symptom often found in young dogs is a reluctance to jump, similar to the reluctance to play, jumping puts massive amounts of strain on acetabulums affected with CHD and thus is most often accompanied with large amount of pain (Lopez 183).

Adult and elderly dogs often have the same symptoms as young dogs but to a higher degree. However, adult and elderly dogs will also have more symptoms. In the mornings or after long periods of rest they may be slow to rise due to stiffness in their joints. Their rump muscles

may also be underdeveloped and “soft” in comparison to their overdeveloped front end(Lopez 183). This is due to their front legs over-compensating for their back end. They may also develop a sway in their hips when they walk. Rather than their shoulders and hips being square when they walk, the hips will sway from side to side with each step.

Preventive care is most often available to limit the extent of CHD, and should be used in the developmental stages of the dog². The most important preventive care option is for an owner to keep their pet at a healthy body weight. While there is no correlation in regards to developing CHD and a dog being overweight, there is a correlation to worsening effects of CHD and early development of Osteoarthritis (OA). This is due to the added strain that extra weight has on underdeveloped acetabulums which causes more grinding of the femoral head and acetabulum leading to the degradation of smooth cartilage and eventually early development of OA. The second preventive care option is implementing joint supplements into the diet. One supplement Glucosamine can be found over the counter at a multitude of places such as pet stores and online shops. Glucosamine promotes the development of smooth cartilage and joint development in a dog's developmental stages of life. One of the final preventive care options is to limit excess exercise in dogs. Regular walks, consistent play, and a good diet should keep most dogs at a healthy body weight. Most harmful when a dog is overweight are runs, where the dog is keeping up with the owner. The pounding and strain caused by running is okay for short periods of time such as play, however extended periods of time such as runs can speed up the worsening effects of CHD and OA (Interview of Dr. Franks, Interview of Dr. Radacsh).

² Please discuss with your Veterinarian about any course of action you plan to take with your pet

There are approximately four surgical options. Pupic Symphysiodesis (PS), Triple Pelvic Osteotomy (TPO), Femoral Head Ostectomy (FHO), and Total Hip replacement (THR). The first preventive surgical option is the PS, this procedure fuses the pupic symphysis to reshape the position of the acetabulum, allowing it to fully develop. This procedure has the lowest cost of all the procedure at approximately 1500 dollars (An Interview With Dr. Franks Discussing Cost.). In addition the recovery period is close to two weeks. The window of opportunity is from six to twelve weeks of age. The second preventive surgical option is the TPO, this procedure creates three surgical incisions used to rotate the acetabulum over the femoral head and plating is used for stability. The approximate cost for this procedure is 3000 dollars and has a recovery period of four to six weeks with strict exercise limitation (An Interview With Dr. Franks Discussing Cost.). The window of opportunity is four to six months. The FHO and THR procedures are directly linked to the severity of each case. The FHO procedure removes a portion of the femoral head that was once grinding against the acetabulum thus allowing the joint to move smoothly with no pain. The approximate cost is 2500 dollars and has a recovery period of four to six weeks (An Interview With Dr. Franks Discussing Cost.). The final surgical option is the THR. This procedure replaces the coxofemoral joint and femoral head with prosthetics to give full range of motion back to the dog, this procedure allows the dog to as close to normal as surgically possible. The approximate cost is five thousand to six thousand dollars and has a recovery period of four to six months (An Interview With Dr. Franks Discussing Cost.).

While CHD is genetic and most commonly found in large breed dogs, small breed dogs can develop the disorder as well. If you feel as if you dog possibly has or could develop CHD

talk with your veterinarian about possible preventive care, palpation test, and radiographic test to diagnose your dog.

Citations

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