Degenerative Myelopathy (DM) Phenotype

Degenerative myelopathy (DM) is a disease in dogs that affects the spinal cord and leads to progressive weakness and paralysis. DM affects older adult dogs and is characterized by a decline in motor function. This disease is often described as a degenerative myelopathy and is similar to amyotrophic lateral sclerosis (ALS) in humans.

Materials and Methods

Samples were obtained from adult dogs (A/A) and age-matched controls (B/B). Samples were divided into three groups: wildtype, heterozygous, and homozygous for the SOD1 mutation.

Results

Neurons from dogs with DM showed a significant decrease in SOD1 immunoreactivity compared to control dogs. This decrease was more pronounced in the homozygous genotype. The results suggest that the SOD1 mutation contributes to the degeneration of motor neurons in DM.

Conclusion

Our findings provide new insights into the pathogenesis of DM and suggest that the SOD1 mutation plays a role in the disease process. Further studies are needed to understand the mechanisms underlying the observed changes in SOD1 expression.

References