

Q: My husband and I want to get a new dog and are researching breeds. We are interested in getting a Pug but read about Pug Dog Encephalitis. How common is PDE? Should we be concerned about it? What are the signs of PDE?

A: Pug Dog Encephalitis (PDE) is also known as Necrotizing Meningoencephalitis. It is an inflammatory disease of the central nervous system that specifically affects the brain. This disease is seen in other breeds including the Maltese and Yorkshire terrier so we will refer to it in this article as NME. Other small breeds of dogs have been affected by the disease, but at a lower rate.

NME affects both males and females from 6 months to 13 years of age. Females may be overrepresented. Although many believe there is a genetic link to the disease, the mode of inheritance has not been determined. It is strongly suspected that this is an immune mediated disease. With immune mediated disease, the body produces antibodies that attack its own tissues. This disease is not transmissible between animals and poses no known threat of being passed to people.

The early signs of NME include seizures, circling, poor vision and pressing the head against hard surfaces. Sometimes the dogs may have neck pain. NME is diagnosed based on breed, history of signs at home and examination. An MRI and analysis of cerebral spinal fluid may also be performed to confirm the diagnosis. The MRI will show changes in the brain consistent with the disease and a CSF tap will have autoantibodies for a positive sample.

The goal of treatment for dogs with NME is to reduce seizure activity and reduce inflammation in the brain. Medications can be given to reduce swelling of the brain and anticonvulsants to help stop seizures. Anticonvulsants and anti-inflammatory steroids will be required for the life of the pet to help minimize the symptoms.

Prognosis for these pets is grave as the signs will progress. The seizures will become intractable, despite medical therapy. The majority of dogs with NME die or are euthanized within 6 months of the onset of signs.

Pugs make great dogs and are devoted members of the family. There is a small risk that you could adopt a Pug with this disease, but all breeds have their own genetic problems that may be inherited. If you find a Pug that you love, I would recommend welcoming him or her into your home. Be knowledgeable about the disease and hopefully you'll never see any signs of it.

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