

CASE STUDY

Multiple Sclerosis

Patient: John
Gender: Male
Age: 53
Occupation: Veterinarian



“I’m not balking at the diagnosis of MS, but I am exposed to so many weird things, I would like to know that’s all I have.”

BACKGROUND

As a small animal veterinarian, John had daily contact with animals for well over 30 years. Starting in late 2004, he suffered progressive neurological symptoms – debilitating enough that after being a runner for years he faced the possibility of being wheelchair bound. His hands became numb, and he was constantly fighting fatigue. The buildup of symptoms over months prevented John from maintaining his practice and had him seeking medical help.

John consulted dozens of physicians, none of whom were able to explain his condition. Ultimately, he was diagnosed with Multiple Sclerosis (MS), for which there is no identified cause or cure. Physicians began to administer interferon treatment. The

treatments may have helped, he felt, but John was concerned because he knew, as a veterinarian, he had been exposed to numerous pathogens, and the MS diagnosis did not explain all of his symptoms.

In July 2005, a friend and mentor suggested he participate in a study conducted by Dr. Edward Breitschwerdt, Professor of Internal Medicine and Director of the Intracellular Pathogens Research Laboratory at the North Carolina State University College of Veterinary Medicine. Dr. Breitschwerdt was using a new testing method *Bartonella* ePCR™ to test for *Bartonella* infections in animals and veterinary workers.

TESTING | TREATMENT

John tested positive for *Bartonella henselae* with the *Bartonella* ePCR™ test and culture. However, his doctors were reluctant to treat the infection. At the time, there was limited research on the importance of *Bartonella* as a neurologic pathogen and treatment protocols had not been defined for bacteremic immunocompetent patients with neurological disease.

After testing positive a third time, John sought out a new physician with experience in zoonotic and vector-borne

infections who could treat his unique condition. John was placed on a multi-drug antibiotic regimen that lasted over a year. Progress was not immediate, but over the course of months John regained significant use of his legs, had dramatically increased energy and saw a reduction of other neurological symptoms.

CONCLUSION

John’s quality of life improved to the point that he was able to begin working more. John’s physician believes that his MS may have been triggered by his *Bartonella* infection. Recently, John had another positive PCR test for *Bartonella henselae* in a tissue sample of a dermal hemangioma while continuing to be negative on blood samples. As a result, he is being treated again with antibiotics.

Breitschwerdt EB, Maggi RG, Nicholson WL, Cherry NA, Woods CW. *Bartonella* spp. bacteremia in patients with neurological and neurocognitive dysfunction. J Clin Microbiol. 2008; 46(9):2856-61.

Sykes JE, Lindsay LL, Maggi RG, Breitschwerdt EB. Human coinfection with *Bartonella henselae* and two hemotropic mycoplasma variants resembling *Mycoplasma ovis*. J Clin Microbiol. 2010; 48: 3782-5.

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