



CASE STUDY

Postural Orthostatic Tachycardia Syndrome (POTS)

Patient: Lauren
Gender: Female
Age: 34
Occupation: Veterinarian



**“I was taught it is a self-limiting infection.
Bartonella is something that has always been blown off as nothing.”**

BACKGROUND

Lauren was working as an emergency veterinarian in Washington, D.C. in 2004 when she received a cat bite during an examination. Within a day, she realized the bite had developed an infection, and she was hospitalized and received IV antibiotics. While in the emergency room, she began to feel dizziness and developed blurred vision. Lauren assumed it was just from exhaustion but was still feeling symptoms after three or four days.

Lauren was placed on oral antibiotics and returned to work. Unfortunately, during the next few weeks her symptoms worsened. Her vertigo was growing worse and she grew increasingly tired and weak. She was unable to stand for long periods of time and had to stop performing surgery because her vision was too poor. Her increasing dizziness reached the point that she could no longer drive to work. In addition, she started having trouble focusing and had problems with her short-term memory.

Within three months, Lauren had to stop working completely.

Lauren was actually tested for *Bartonella* soon after the bite, but the antibody test came back negative. During the next few years, she went to visit more than 20 physicians before being diagnosed at the Mayo Clinic in 2006 with fibromyalgia and dysautonomia, specifically POTS (Postural Orthostatic Tachycardia Syndrome). POTS is a chronic illness that is characterized by the body's inability to make the necessary adjustments to counteract gravity when standing up. Patients experience tachycardia (rapid heartbeat), constant lightheadedness, dizziness, weakness and extreme fatigue. Essentially, this meant that a simple movement like standing up could cause her heart to beat so fast that she would pass out. Drug treatments were helping, but Lauren was still very disabled. From 2006-2009 she was essentially wheelchair bound and could not leave her house.

TESTING | TREATMENT

In 2009, after three years of POTS treatment and six years of being disabled, Lauren found out about the *Bartonella* research being done 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 also happened to be one of Lauren's former professors. His research team had recently developed a new test

method for *Bartonella*, *Bartonella* ePCR™. This new test was more sensitive than Lauren's previous test, and it showed that Lauren was infected.

Lauren went on antibiotic treatment for over a year and saw slow improvement in her symptoms. In the last 18 months, she has begun seeing a rheumatologist who has been treating her for chronic infection caused by *Bartonella* and other pathogens.

CONCLUSION

Diagnosis and treatment for *Bartonella* infection has provided Lauren with hope for her future. Lauren is now able to drive and go out of the house without assistance. Her energy level is significantly higher than it was from 2006-2009 and she has regained some independence. She still suffers some from blurred vision, dizziness and some aches and pains, but she is hugely improved today compared to the same point one year ago.

The progress she has made over the past year has her optimistic that she will be able to resume a normal life, although she may not be able to work as a veterinarian again. While the idea of having children seemed out of the question a few years ago, she and her husband believe it could be a possibility in the future. She is extremely grateful for the work of Dr. Breitschwerdt and Galaxy Diagnostics, and believes that she would still be severely disabled without their help. Without their testing, she feels that she would still be in the dark as to what caused her illness.

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

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Bartonella ePCR™ was developed and its performance characteristics determined by the North Carolina State University College of Veterinary Medicine and Galaxy Diagnostics, Inc. It has not been cleared or approved by the U.S. Food and Drug Administration (FDA). The FDA has determined such clearance is not necessary. Results from testing are to be used in conjunction with clinical findings to establish diagnosis.

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