



## CASE STUDY

### Bipolar Disorder and Schizophrenia

**Patient:** Laura  
**Gender:** Female  
**Age:** 22

**Occupation:** Veterinary Technician



**“Treatment has made a big difference in my life. Not only having the physical symptoms gone, but being able to interact with people and not feel like I have to hide anything because I am different from everyone else.”**

## BACKGROUND

As a young child, Laura had a number of risk factors for exposure to Bartonella. She spent time around animals, her family always had cats, and she spent a great deal of time outdoors. In 2005, at around the age of 15 years old, she began having neurological problems. It started with a loss of peripheral vision and joint pain. She had painful venous nodules in her hands and eventually lost the feeling in her hands. She developed chronic headaches and back pain. And, by 2008, she began having hallucinations, depression and memory problems.

Laura saw numerous specialists including a neurologist and neuro-ophthalmologist, but all of the diagnostic tests they ran to determine the cause of her symptoms came up negative. She was eventually diagnosed with bipolar disorder and schizophrenia. Treatments prescribed by her psychiatrist helped reduce her hallucinations, though they were still a problem.

Laura battled with these symptoms all the way through high school. Understandably, school was difficult for her as she dealt with an additional and different set of priorities than the typical teenager.

## TESTING | TREATMENT

Finally in 2009 Laura received a diagnosis that appears to have explained her health problems. Her mother read about the work 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, and realized that Laura’s neurological symptoms were consistent with the symptoms of Bartonella infection being reported in veterinary professionals with extensive arthropod and animal contact as risk factors.

Laura was tested for Bartonella using a novel test method, called Bartonella ePCRTM, developed by scientists at the North Carolina State University College of Veterinary Medicine, and she was infected with Bartonella koehlerae. At age 19, she underwent two rounds of antibiotic treatments for about

three months each. She saw small improvements within a couple of weeks, with the first sign as feeling returned to her hands – something she had not felt in over three years. More results came approximately two months after her treatment ended and included the return of her peripheral vision.

Despite her initial progress, Laura’s symptoms returned and she tested positive again for Bartonella in late 2011, about two years after her initial treatment. She was placed on a different antibiotic protocol than her original treatment, and within weeks she experienced the most dramatic improvement in her health in the last 6 years. Today she says her vision is great, her feeling of touch is back in her hands, and her psychiatric issues are gone. Her physician is weaning her off medication for bipolar disorder and schizophrenia without any relapse of symptoms.

## CONCLUSION

At age 24, Laura has a great outlook on her future. Getting healthy has been a slow process, but she believes there is a chance she could improve completely. She currently loves her job and intern for an electrical power engineering company and is pursuing a degree in mechanical engineering.

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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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