

Central Nervous System Lyme Disease

Retinal Exam Advanced Learning [R.E.A.L.] Images Case Study Program

In an effort to offer continuing education and promote shared learning among our partners, Optos has created the R.E.A.L. Images Program. As part of this effort, we are looking for interesting case studies that demonstrate “real-life” cases where using the **optomap**® Retinal Exam made a difference in a patient’s life.

“**optomap**® has helped me build my practice as well as my confidence as a practitioner.”



Jacqueline Campisi, O.D.

Vision Sight and Learning Center and Dr. Campisi Case Study

An asymptomatic 6-year-old child presented at Jacqueline Campisi’s office for a back-to-school eye exam. In the course of her comprehensive examination, Dr. Campisi compared last year’s **optomap**® to this year and noticed swollen optic nerves on the current year’s **optomap**® images.

Dr. Campisi referred the child to a pediatric ophthalmologist and pediatric neurologist at Children’s Hospital for a complete work-up. A CAT scan and Lumbar puncture were performed and the child was admitted.

The child was diagnosed with papillitis aseptic meningitis due to Lyme disease which caused the bilateral swelling of the brain and optic nerves. He was hospitalized for three days and discharged with an IV pack.

Pertinent History

The child’s visual acuities were 20/25 OU and his history was unremarkable except that he had complained of leg pain. In addition to his eye exam, the child had seen his pediatrician recently and nothing was diagnosed or noted during his physical examination.

Lyme disease is an illness caused by a spirochete bacteria, *Borrelia burgdorferi*, which is transmitted through the bite of infected ticks. The disease is reported worldwide and throughout the United States, however, the states of New York, Massachusetts, Connecticut, Rhode Island and New Jersey account for the majority of cases in the United States.

In about 50% of cases, a characteristic rash or lesion is seen, however, it is often confused with



Comparing the **optomap**® images from 2004 to 2005 allowed Dr. Campisi to discover swelling of the optic nerve.

poison ivy, spider or insect bits or ringworm. When the rash appears, flu like symptoms are also often present. If ignored, the early symptoms may disappear, but more serious problems can develop months to years later. Lyme disease is treated with antibiotics. Timely treatment increases chances of recovery and may lessen the severity of any later symptoms.

optomap® Impact

Because the child was light sensitive and uncooperative, he kept shutting his eyes whenever Dr. Campisi tried to use an ophthalmoscope. A dilated manual exam would have been quite difficult to perform effectively. With the **optomap**® Retinal Exam, however, ultra-widefield images are quickly and non-invasively captured, enabling the patient, patient’s family and the doctor to interactively review the images. Because Dr. Campisi recommends an annual **optomap**® for every patient, she was able to immediately compare last year’s images to this year by placing them side by side in Optos® V2® software, which highlighted the swollen nerves.

Follow-up Treatment

Dr. Campisi remained in touch with the child’s parents and physicians during his recovery. She surmised that the child’s hyperopia may have been induced by the disease and therefore, recommended that the parents wait to fill his glasses prescription. Dr. Campisi requested that the child return for another **optomap**®, visual fields test and refraction in 3 to 6 months. Dr. Campisi and the child’s parents credit the **optomap**® with the early detection of Lyme disease symptoms and perhaps more acute complications from the disease later on.

Learn How

For more information on this program and to download the submission form, visit our website at www.optos.com, sign into the Partner Login area and go to Case Studies.