Lyme & Other Tick-Borne Diseases Conference: What Clinicians Need to Know About An Expanding Epidemic

Jointly Provided by:

LYME DISEASE ASSOCIATION, INC.
A National Non-Profit

Saturday & Sunday, September 23 & 24, 2017
Hilton Penns Landing
Philadelphia, PA

Accreditation, Disclosure, Audience & Learning Objectives

Accreditation: This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the College of Physicians and Surgeons of Columbia University and the Lyme Disease Association. The College of Physicians and Surgeons of Columbia University is accredited by the ACCME to provide continuing medical education for physicians. AMA Credit Designation Statement: The College of Physicians and Surgeons designates this live activity for a maximum 14.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Disclosure: The College of Physicians and Surgeons must ensure balance, independence, objectivity, and scientific rigor in its educational activities.

Disclosure: All faculty participating in this activity are required to disclose to the audience any significant financial interest and/or other relationship with the manufacturer(s) of any commercial product(s) and/or provider(s) of commercial services discussed in his/her presentation and/or the commercial contributor(s) of this activity. When unlabeled uses are discussed, these will also be indicated.

Target Audience: The target population is physicians from all specialties, nurses, psychologists, scientists, public health, other health related professionals. It is open to the public & Lyme disease educators usually attend. Geographic area is nationwide, no special background required, although those whose practices contain high proportion of Lyme patients and those whose research concentrate on Borrelia burgdorferi will receive most benefit.

Learning Objectives: Practitioner should be better able to describe the role of inflammation and autoimmunity in persistent symptoms related to Lyme disease. Practitioner should be better informed about new diagnostic advances. Practitioner should become more knowledgeable about antibiotic treatments for patients with neurologic Lyme disease. Awareness that there are a wide array of new strategies to prevent tick-borne infections. Awareness of how Lyme disease infection can affect cardiac function.

This activity has been submitted to Pennsylvania State Nurses Association for approval to award contact hours. Pennsylvania State Nurses Association is accredited as an approver of continuing nursing education by the American Nurses Credentialing Center’s Commission on Accreditation.

The LDA received educational gift support for this conference from the Steven & Alexandra Cohen Foundation

SCHOLARSHIPS OFFERED
Lyme Disease Association, Inc. (LDA) is offering scholarships to the conference to eligible medical students, residents, post-doctoral candidates, fellows, veterinarians with equivalent status to the above, and nurse practitioner candidates.

REGISTRATION, HOTEL & CONFERENCE DETAILS go to the LDA website www.LymeDiseaseAssociation.org
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An educational and networking event featuring prominent speakers on tick-borne diseases

Columbia University & Lyme Disease Association, Inc. Conference Faculty

SERVANVAN THANGAMANI, MSc, PhD (9:10 - 9:45 p.m.)
Associate Professor, Department of Pathology
Vice-Chair, Institutional Animal Care and Use Committee
Director, In-situ Services Core
Director, Anthropic Containment Laboratories
University of Texas Medical Branch, Galveston, TX
Positivist Views: An Emerging Tick-Borne Voice of Public Health Concern in North America
Late Afternoon Discussion (5:45 - 6:00 p.m.)

AGENDA - SUNDAY SEPTEMBER 24, 2017
Registration / Exhibits (7:30 - 8:00 a.m.)
John Aucott, MD
Sunday Facilitator
Monica E. Embers, PhD (8:00 - 8:35 a.m.)
Research Assistant Prof., Division of Rheumatology/Parasitology
Tulane National Primate Research Center, Covington, LA
The Challenges of Diagnosing and Curing Late Stage Lyme Disease
Salwan Jaraddeh, MD (8:35 - 9:10 a.m.)
Professor of Neurology and Neurological Sciences
Autonomic and Neuromuscular Disorders
Stanford University School of Medicine, Stanford, CA
Autonomic Dysfunction in Post-Infectious States
Adrian Barazchuk, MD, FACC, FRCP, FCDS (9:10 - 9:45 a.m.)
Professor of Medicine, Queen's University, Ontario, CA
Lyme Carditis and Management of High Degree AV Block
Ahmet Z. Burakgazi, MD (9:45 - 10:20 a.m.)
Assistant Professor, Neuroscience Section/Dept. of Neurology
Virginia Tech Carilion School of Medicine, Roanoke, VA
Case Report: Optic Neuropathy and Probable Lyme Disease
Food Break (10:20 - 10:55 a.m.)
Morning Discussion Panel (10:55 - 11:15 a.m.)
Lorraine Johnson, JD, MBA (11:15 - 11:50 p.m.)
CEO, LymeDisease.org
Challenges in the Study of Chronic Lyme Disease
Maya R. Jerath, MD, PhD (11:50 - 12:25 p.m.)
The Evolving Mosaic of Tick-Borne Rickettsioses in the United States
Centers for Disease Control and Prevention, Atlanta, GA
Medical Officer, Rickettsial Zoonoses Branch
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THANK YOU FOR JOINING US!
Nicolle Baumgartner, DVM, PhD, Keynote — Barreia borrelifera and the Subversion of the Adaptive Immune Response

Barreia borrelifera is a small rounded cell that is an essential component of Lyme disease. This parasite is known to evade and suppress the immune system. In pathophysiological processes, this can result in persistent infection, of Borrelia burgdorferi.

Garrick Ehrlich, PhD, FAAS — Development of Pan-Domain Diagnostics to Provide Accurate and Comprehensive Analyses of Lyme Disease and Tick-Borne Co-Infections

Lyme disease, spatially speaking, is defined as a tick-borne immune response to Borrelia burgdorferi. It is a poorly established and highly variable disease that is difficult to treat. We observed that the observed antibiotic resistance and effectiveness of Lyme disease might be due to the formation of defensive morphological forms in Borrelia burgdorferi. In addition to the bacterial forms, we have observed Borrelia biofilm in inflammatory processes as well as our recent metagenomics findings indicating potential co-infection in Borrelia patients.

Eva Sapi, PhD — Biofilm and Lyme Disease

Lyme disease patients are involved in various activities. The rate of relapses and recurrences is frequent after antibiotic treatment. It was proposed that the observed antibiotic resistance and the reoccurrence of Lyme disease might be due to the formation of defense mechanisms in forms of Borrelia burgdorferi. In addition to its bacterial forms, it can form biofilms that are resistant to antibiotics. The formation of Borrelia biofilm is thought to be involved in the persistence of the disease. We provide evidence of Borrelia biofilm in inflammatory processes as well as our recent metagenomics findings indicating potential co-infection in Borrelia patients.

Ying Zhang, MD, PhD — Persisters

In this presentation, the focus is on the role of persisters in the development of antibiotic resistance in Lyme disease. We will discuss various methods for identifying persisters and their role in the persistence of the disease. The focus will be on the role of persisters in antibiotic resistance and their role in the persistence of Lyme disease.

Johnaucott, MD — Immune Biomarkers in Lyme Disease

Progress in molecular immune modulation combined with immune stimulation and research has resulted in a unique opportunity to identify immune biomarkers that can be used to diagnose Lyme disease. The GSE study at d.m. Hopkins has enrolled hundreds of patients with well established and highly variable Lyme disease at 12 sites. The study is a clinical trial to evaluate the effectiveness of a new immune modulator for the treatment of Lyme disease.

Sheila Avirkav, MD — Autoimmune Disorders following Lyme Disease

One of the challenges in Lyme disease is the identification of the initial infection. Microbial clearance is not always achieved and the patient may experience symptoms that are difficult to distinguish from other infections. The initial infection may be asymptomatic and the patient may only experience symptoms after the immune system has cleared the infection. The identification of the initial infection is important to prevent the development of chronic Lyme disease.

Brian A. Fallon, MD, MPH — Why do Symptoms Persist?

Persisters are a critical component of the development of chronic Lyme disease. They can result in the persistence of symptoms and the development of chronic Lyme disease. The identification of persisters is important to prevent the development of chronic Lyme disease.

Robert Bransfield, MD, DLFAPA — The Psychoimmunology of Lyme and Associated Diseases

Attention to psychoimmunology helps us understand the pathophysiological sequence that begins as a tick-borne or other infection and results in psychiatric symptoms. The nervous system and immune system communicate with each other and have many similarities. Both have innate and adaptive capabilities, both involve complex communication between cells, both have similar pathophysiological processes. Many genes associated with mental illness involve immune function.

Diagnoses related to Lyme disease have been associated with frequency of Lyme-associated autoantibodies. The patients were treated with typical inflammatory therapies which are the standard of care for these diseases, resulting in improvement. In addition to this cohort, we have seen other types of diseases such as erythema migrans.

Michael Colavecchio — Development of Pan-Domain Diagnostics to Provide Accurate and Comprehensive Analyses of Lyme Disease and Tick-Borne Co-Infections

B. burgdorferi biofilm formation is associated with antibiotic treatment failure. The formation of Borrelia biofilm is thought to be involved in the persistence of the disease. We provide evidence of Borrelia biofilm in inflammatory processes as well as our recent metagenomics findings indicating potential co-infection in Borrelia patients.

Antimicrobial agents, which previously showed some success against the spirochete and round body forms of Borrelia burgdorferi, have not been successful in eradicating the Borrelia biofilm.

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Ahmet Z. Burakgazi, MD — Case Report: Optic Neuritis and Probable Lyme Disease

Optic neuritis is one of the most common manifestations of central nervous system involvement caused by various pathogens. Lyme optic neuritis is caused by Borrelia burgdorferi, the etiological agent of Lyme disease. Lyme disease is an important public health concern in the United States, with an estimated 300,000 new cases diagnosed annually. Lyme disease is transmitted to humans through the bite of an infected tick of the Ixodes ricinus complex, which is found in over 20 states in the U.S. Lyme disease is characterized by a characteristic illness with stages: early localized disease, early disseminated disease, and late disease. In late disease, Lyme disease can involve any organ system of the body, including the central nervous system. Lyme optic neuritis is a rare manifestation of late disease and is characterized by monocular or bilateral visual loss. The presentation will be illustrated with 2 local cases in the endemic region of Canada and show how the management of these cases required a different approach than the one provided for most patients. Excluding other causes of optic neuritis such as multiple sclerosis, sarcoidosis, and vasculitis, Lyme optic neuritis was diagnosed in all cases.

Lorraine Johnson, JD, MBA — Mycoplasma: The Value of Using Big Data and Subtyping Analysis in Lyme Disease

In 2015, LymeDisease.org launched the first nationwide Lyme disease patient centered registry and research platform, MyLymeData. The registry has enrolled over 8,000 patients and is in the top 10% of patient registries in the nation. The registry will be presented in this session to outline the value of using big data and subtyping in the management of Lyme disease.

Christopher D. Paddock, MD, MPHMT — The Evolving Role of Tick-Borne Rickettsioses in the United States

Rickettsiosis is an emergent zoonotic disease that has been spreading rapidly through North America, with a recent explosion in the number of reported cases. In 2016, over 28,000 cases of rickettsiosis were diagnosed in the U.S., a 7.6% increase from the previous year. This presentation will focus on the epidemiology and burden of disease, as well as emerging trends in the diagnosis and management of tick-borne rickettsioses in the United States.

Beatrice M. Szantoy, MD, FAAP — The Challenges Faced in Diagnosing and Treating Ticks: Prevention Tips and Treatment Options

Prevention is key in managing tick-borne diseases. This presentation will cover the latest research on tick prevention, including tick repellents and protective clothing. It will also address specific preventive strategies to reduce the possibility of tick bites, including use of insect repellents and early and effective treatment of tick-borne illnesses. The presentation will conclude with a discussion of the latest research on the effectiveness of vaccines for tick-borne diseases.