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Abstract

Grant Number: 1R01AM020358-01
Project Title: LYME ARTHRITIS: A NEW EPIDEMIC DISEASE

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|----------------------|--|-------|
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Abstract: *We have recently uncovered a new, epidemic disease -- Lyme arthritis -- probably caused by a tick-transmitted virus in which immune complex formation is associated with lesions in the skin, joints, heart, or central nervous system. We plan to define the natural history of this illness -- its course and prognosis -- etiology, vector, and pathogenesis. To accomplish these objectives, a network of primary physicians has been established to refer patients with erythema chronicum migrans and/or Lyme arthritis. The natural history of the illness will be described from the serial examination of these patients. Cryoprecipitates will be sought for in the sera of each patient at each visit, and characterized. Specimens from patients will be inoculated into tissue cultures, and skin, synovial, and cryoprecipitate specimens will be examined by electronmicroscopy. Ticks collected in the field will be identified by species, pooled, and extracts inoculated into tissue cultures and mice. Extracts from tick pools will be reacted with convalescent sera in double immunodiffusion gels and by immunoelectronmicroscopic techniques. If a serologic test can be developed for Lyme arthritis, positive diagnosis will be possible in all affected patients, and studies will be conducted in the epidemic area and in other areas, to determine attack rates within sample human and animal populations; the results would provide the basis for decisions about control measures.*

Public Health Relevance:

This Public Health Relevance is not available.

Thesaurus Terms:

GENERAL MEDICINE STUDY SECTION, SKELETAL DISORDERS, ARTHRITIS, VIRUS DISEASES
ARTHROPODS, ARACHNIDS, TICKS, COMMUNICABLE DISEASE TRANSMISSION, DISEASE VECTORS (COMMUNICABLE DISEASE), HEART DISORDERS, MYOCARDIAL DISORDERS, IMMUNOLOGICAL TESTS AND IMMUNOASSAY, IMMUNOLOGICAL TESTS*, IMMUNOLOGY, ANTIBODIES, COLD ANTIBODIES, IMMUNOLOGY, MICROBIAL, IMMUNOPATHOLOGY, IMMUNE COMPLEX DISEASES (SEE ALSO SPECIFICS), NERVOUS DISORDERS CENTRAL (GENERAL), SKELETAL DISORDERS, JOINT DISORDERS, SKIN DISORDERS, SKIN DISORDERS, ERYTHEMA (GENERAL)*
HUMAN, CLINICAL, MAMMALS, RODENTS, MYOMORPHA, MICE (LABORATORY), OPTICS, MICROSCOPY, ELECTRON*, TISSUE (CELL) CULTURE**

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Department:

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ICD: NAT INST OF ARTHRITIS, DIABETES, DIGESTIVE & KIDNEY DISEASES

IRG: GMA

