

Therapy of Lyme borreliosis

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SUMMARY

Despite many studies that have been carried out recently, there is still no standard treatment for Lyme borreliosis. The factors that must be taken into consideration in treating the disease are the intrinsic sensitivity of the pathogen *Borrelia burgdorferi*, tissue penetration of the antibiotic, the characteristics of the pathogen, such as long generation time (7-20 h), intracellular localization, persistence in tissues with a poor blood supply (e.g. synovia), penetration of the blood-brain barrier, and varying antibiotic resistance of different pathogen strains. A generally accepted antibiotic treatment regimen has yet to be established, and all treatment recommendations are essentially provisional.

Introduction

Decades before *Borrelia burgdorferi* was identified as the causative agent of Lyme borreliosis, antibiotic treatment of adults with penicillin was shown to be associated with a faster resolution of erythema migrans and its associated symptoms. However, clinical studies have since demonstrated the possibility of treatment failures with penicillin, and other antibiotics appear to be superior to penicillin. Despite many studies that have been carried out recently, there is still no standard treatment for Lyme borreliosis and further improvements are necessary. The most effective antibiotic, the optimal dosage and the appropriate duration of treatment have not been exactly determined for any of the many clinical manifestations of the disease.

Present therapeutic recommendations are based on

in-vitro studies, observations from animal models, and the clinical experience (1-16).

Early localized stage

This stage comprises erythema migrans and the less frequent lesions of borrelial lymphocytoma. Oral therapy is generally sufficient if the patient takes the drug as instructed.

Classical regimens are:

Amoxicillin 3 x 500-1000 mg p.o. x 14-21 days or Doxycycline 2 x 100 mg p.o. x 14-21 days (tetracyclines are contraindicated for pregnant or lactating women and

KEY WORDS

Lyme borreliosis, therapy

