

DERMATOLOGICAL MANIFESTATIONS OF LYME BORRELIOSIS

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ABSTRACT

Lyme Borreliosis is a multisystemic infection involving skin, joints, the nervous system, the heart and eyes. As of yet four different genospecies of *Borrelia burgdorferi* have been identified: *Borrelia burgdorferi* sensu stricto, *Borrelia garinii*, *Borrelia afzelii*, and *Borrelia japonica*. Different strains of borreliae have been associated with different clinical manifestations of Lyme Borreliosis. Lyme Borreliosis is classically described as having three clinical stages or, similar to syphilis, an early phase and a late one. The early infection corresponds to the first stage, the late infection includes the second and the third stages. Skin manifestations of Lyme Borreliosis could be classified into five categories. The first one is characterized by skin manifestations proven to be caused by *Borrelia burgdorferi* infection, including erythema migrans, lymphadenosis benigna cutis and acrodermatitis chronica atrophicans. The second category covers controversial Lyme Borreliosis manifestations, such as lichen sclerosus et atrophicus, morphea, scleroderma, Scleredema of Buschke, atrophoderma of Pasini and Pierini, Parry-Romberg syndrome (facial hemiatrophy) and Shulman's fasciitis. The third category encompasses granuloma annulare, atypical persistent pityriasis rosea and pityriasis lichenoides which are skin lesions occasionally related to Lyme Borreliosis. Urticaria, erythema nodosum and papular acrodermatitis (Giannotti Crosti syndrome) have been classified as reactive Lyme Borreliosis skin manifestations. The last category of diseases includes exceptional skin manifestations during Lyme Borreliosis such as nodular panniculitis (Weber-Christian), B-cell cutaneous lymphoma and juvenile chronic myeloid leukemia.

KEY WORDS

Lyme borreliosis, skin manifestations, Borrelia burgdorferi

INTRODUCTION

In recent years there have been numerous and important advances in the field of Lyme Borreliosis (LB). However, many questions concerning this disease still remain unanswered. The spirochetal behaviour

is not clear after *Borrelia burgdorferi* (*Bb*) has infected the human body. These organisms can produce pathognomonic lesions, skin manifestations mimicking other diseases or clinical pictures that can also be induced by other causative agents.

