Pediatric Rheumatology

Poster presentation

Borrelia burgdorferi antibodies in childhood scleroderma

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Background and aim

A possible aetiological connection between skin sclerosis and infection with Borrelia burgdorferi (Bb) has been discussed. Studies investigating the link between Bb and morphea have produced conflicting results. In several series, all patients with morphea tested have been seronegative. Other studies have found specific antibodies to Bb in between 6% and 54% of patients with morphea.

To establish the frequency of ANA and specific antibodies to Bb in children with scleroderma.

Materials

44 children with scleroderma (4-SS, 40-LS) were tested. Clinical forms of LS: linear-10, morphea-8, morphea generalisata-4, profunda-6, pansclerotic-2, en coup de sabre (CSLS)-1, linear+morphea-7, CSLS+morphea-2. The patients sera were tested for ANA and Borrelia-specific IgG and IgM (recom – Blot Borrelia$_{NB}$ IgG and IgM Microgen).

Results

ANA were detected in 3 of 4 patients with SS (75.0%) and 16 of 40 (40.0%) with LS. In 9 of 40 patients with LS (22.5%) were found antibodies to Bb with any correlation to the type of LS or its activity as well as to the presence of ANA. 5 children (12.5%) had positive IgM, another 2 (5.0%) – positive IgG and 2 children (5.0%) – both IgM and IgG. None of the patients had dokumented clinical evidence of previous infection with B. burgdorferi. All 4 patients with SS tested for the antibodies to Bb have been negative.

Conclusion

The role of the antibodies to Borrelia burgdorferi in the localized scleroderma is still unclear. Our results do not suggest a possible aetiological connection between Borrelia burgdorferi infection and systemic scleroderma.