

Poster presentation

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HLA-B27 predicts a more extended disease with increasing age at onset in boys with juvenile idiopathic arthritis

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Background

The cell-surface antigen HLA-B27 is well known to be associated with spondylarthropathies, reactive arthritis and enthesitis. HLA-B27 plays an important role in the ILAR classification of JIA.

Materials and methods

We wanted to investigate the associations of HLA-B27 on the clinical manifestation of juvenile idiopathic arthritis, during the first three years of disease, in a study as close to a population-based one as possible. Clinical and serological data were collected in 305 patients.

Results

HLA-B27 was analysed positive in 25.5% of the patients and we found a higher proportion of HLA-B27 positive boys with older age at onset ($p = 0.034$). Regression analysis showed a correlation of 0.7 in the HLA-B27 positive boys, pointing to a higher risk of more joints to be involved with a higher age at onset. Using Fisher's exact test, involvement of small joints in the lower extremities was associated with HLA-B27 in boys ($p = 0.011$), but not in girls ($p = 0.687$).

Conclusion

HLA-B27 is of increasing importance with higher age at onset in boys with JIA, predicting more active joints within the first three years of disease, and also involving small joints in the lower extremity to a higher degree than in HLA-B27 negative boys.