【招待講演】

Inflammatory Disease in B27/h β 2M Transgenic Rats: An Animal Model of B27-Associated Human Disorders

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Summary

Humans who have inherited the human class I major histocompatibility allele HLA-B27 have a markedly increases risk of developing the multi-organ system diseases termed spondyloarthropathies. To investigate the role of B27 in these disorders, we introduced the B27 and human β 2-microglobulin genes into rats, a species known to be quite susceptible to experimentally induced inflammatory disease. Rats from one transgenic line spontaneously developed inflammatory disease involving the gastrointestinal tract, peripheral and vertebral joints, male genital tract, skin, nails, and heart. This pattern of organ system involvement showed a striking resemblance to the B27-associated human disorders. These results establish that B27 plays a central role in the pathogenesis of the multiorgan system processes of the spondyloarthropathies. Elucidation of the role of B27 should be facilitated by this transgenic model.