

# Medical Update Memo

March 16, 2010

**Antiviral immune response in patients with multiple sclerosis and healthy siblings**

## Summary

The cause of MS is yet to be found. However, both environmental and genetic factors are believed to contribute to its pathogenesis. Amongst the environmental factors, viruses seem to play an important role. The authors of this article suggest that the nature of the immune response to Epstein-Barr virus is associated with the risk of developing MS. **Mult Scler. 2010 Mar;16(3):355-8**

## Details

The objective of this study was to determine the immune responses to candidate viral triggers of multiple sclerosis in patients and healthy siblings raised in the same family household. Virus antigen-specific IgG responses to Epstein-Barr virus-derived gene products as well as to human herpesvirus-6, human cytomegalovirus, and measles virus were evaluated in 25 multiple sclerosis patients and compared with 49 healthy full-siblings. IgG responses to the latent Epstein-Barr virus-encoded nuclear antigen-1 (EBNA1) were selectively increased in individuals with multiple sclerosis compared with their unaffected siblings. We conclude that elevated IgG responses towards EBNA1 are associated with the development of multiple sclerosis.

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