

## **Coexistence of multiple sclerosis and systemic sclerosis. Diagnostic and treatment considerations**

**K-M. Charisiou<sup>1</sup>, S. Pelidou<sup>1</sup>, F. Karassa<sup>2</sup>, A. Kyritsis<sup>1</sup>**

*<sup>1</sup>Neurology, Medical School, University Of Ioannina, Greece*

*<sup>2</sup>Rheumatology, Medical School, University Of Ioannina, Greece*

Background: Coexistence of autoimmune diseases and multiple sclerosis (MS) has been reported. Wherever if not there is a genetic association between them has to be clarified. MS is rarely reported in association with systemic sclerosis (SSc). Herein we report on a case of with long-lasting SSc which presented with sensory disturbances and finally came out with the diagnosis of MS. Case report: A 43-year-old woman was admitted with a 20-days history of sensory disturbances. These started as numbness on the feet and progressively came up to the low thoracic region bilaterally and symmetrical, reflecting transverse myelitis. On brain and spinal cord MRI demonstrated dissemination of lesions in space and time, thus full-filling the revised 2010 Mc Donald criteria for MS. The diagnosis of coexistence of MS was made after excluding alternative diagnosis. Among the FDA approved immunomodulatory first line treatments glatiramer acetate was preferred due to less known link to autoimmune diseases. Discussion: Despite MS is been frequently reported in association with other autoimmune diseases is rarely described in coexistence with systemic sclerosis. Systemic sclerosis is characterized by immune dysregulation which includes also interferon inducible genes. As is known from the literature some MS cases treated with interferon beta (INF-beta) subsequently developed systemic sclerosis. Maybe INF-beta precipitates immune-mediated abnormalities. Conclusion: INF-beta as treatment for MS coexistent with SSc should be avoided as it could result in significant deterioration of SSc.