Sex and gender issues in multiple sclerosis

An interesting feature that multiple sclerosis (MS) shares with many other immune-mediated diseases is that susceptibility is higher in females than males. Accordingly, the risk of developing MS is estimated at least two to three times higher for women than for men. However, while men have a lower risk of developing MS, many historical studies suggest that males are associated with a poorer clinical outcome, especially in progressive MS. In this form of MS, male patients are reported to have a more rapid accumulation of disability, reach disability milestones more rapidly than their female counterparts, and overall display a more malignant form of disease. Sex differences in MS susceptibility have been shown to be due, at least in part, to the effects of sex hormones such as estrogen and testosterone. An additional role for sex chromosomes in this observed sex dimorphism has also been investigated. With this keynote lecture we will review the effects of gender from a genetic, immunological and clinical point of view. We will discuss the effects of sex on the clinical expression of MS and responses to therapy, as well as issues concerning pregnancy.

Biography

Francesca Gilli has received her MS in Medical Biotechnology and PhD in Human Biology from the University of Torino, Italy. She then completed her Postdoctoral research in Neuroimmunology at University of Torino, Italy; University of Basel, Switzerland, and Geisel School of Medicine at Dartmouth, USA. Currently, she serves as Assistant Professor of Neurology at Geisel School of Medicine at Dartmouth, where she works as a Basic Scientist. Her research focuses on attempting to understand the basic biology of neuroinflammation, demyelination and neuronal injury in Multiple Sclerosis. She has published more than 41 papers in peer-reviewed journals including 25 as main author.

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