Gender differences

MS is more common in females than in males. This has been used to support the autoimmune theory of the disease, since a number of autoimmune diseases are more common in women than in men. However, gender differences in the disease have changed over the years.

About 100 years ago, MS was about 75% men and 25% women. Some have tried to explain this as a diagnostic bias, claiming that men would be diagnosed with MS and women would be diagnosed with hysteria. Though this type of diagnostic bias may have existed at that time, it does not explain the marked male predominance of the disease because death certificate and autopsy data also showed a marked increase in MS in men over women.

Since then, MS has been increasing in women. In about 1960, MS was seen approximately equally in men and women. However looking at death certificates from that time, older patients (who got the disease before 1960) tended to be men and younger patients (who got the disease more recently) tended to be women.

Changes in gender continue, with MS becoming increasingly common in women. Over the past few years, the percent of MS cases who are women has increased from 70% to 75%.

The cause of the shift from male to female predominance of the disease has not been adequately explained. Though diagnostic bias and changes in our ability to diagnose the disease may play some role, clearly these are not the only factors contributing to the changes. These argue strongly against MS being a pure autoimmune disease and also against a pure genetic explanation. Rather they argue in favor of some environmental factor that has an important contribution to the cause of the disease. Whether this is a virus or some other environmental factor is unknown. Ultimately, theories about the cause of MS must account for this shift in gender differences, taking into account differences in the biology of men and women, as well as changing societal roles and how these might affect exposure to environmental risks of MS.