

Hormones and gender under the microscope



Researchers consider effects of pregnancy hormones, menopause on MS

Gender and sex hormones were among the topics of over 600 presentations focusing on multiple sclerosis during the American Academy of Neurology's (AAN) annual meeting in late April. More than 12,000 neurologists and researchers convened to share progress in understanding and treating MS and other neurological diseases.

Gender and MS

MS affects women two to three times more often than men, which is one of the reasons why the National MS Society launched a special gender initiative in the early 2000s. This initiative significantly increased our understanding of the effect gender has on MS, and increased the number of scientists pursuing these questions.

Recently, the National Institutes of Health launched a new policy requiring gender balance in preclinical research. MS gender research, largely funded by the Society, was used as evidence to support this change in policy, which may lead to increased treatment options.

Pregnancy hormone estriol

Dr. Rhonda Voskuhl, a neurologist at UCLA, presented preliminary results of a clinical trial of the pregnancy hormone estriol combined with Copaxone® in relapsing-remitting MS. This study was inspired by the observation that MS relapses are less frequent during later pregnancy, a time when estriol is at high levels. In this trial of 164 women, the investigators determined that oral estriol plus Copaxone reduced the rate of relapses after one-year by 47

percent when compared with women who took Copaxone alone.

The research also showed that taking estriol plus Copaxone conveyed significant positive benefits in the women's scores on cognition tests. For reasons that aren't yet clear, after two years, the difference between the groups was no longer significant. While this study has provided some clues about the possible role of hormones in MS, more research needs to be done in this area before conclusions can be drawn.

Progression and menopause

Dr. Riley Bove, recipient of a Clinician Scientist Development Award, co-sponsored by the Society and the American Brain Foundation, gathered information on MS during menopause from 391 women enrolled in a large-scale, long-term study at Brigham and Women's Hospital in Boston. The results show that disease progression changed at or around menopause toward a more rapid accumulation of disability. Further research will determine whether hormonal shifts are responsible, which may lead to a solution for women with MS going through menopause.

Preliminary results from the [phase 2 clinical trial of sex hormone estriol](#) in women with MS show interesting results that call for further study.