Bringing you MS research updates from around the world:

Multiple Sclerosis Society UK

Ocrelizumab is an intravenous infusion treatment, developed by Hoffmann-La Roche, that has been in phase three clinical trials looking at its use in primary progressive MS and relapsing MS.

Two phase three trials completed in June 2015 had positive outcomes reported as a treatment for relapsing-remitting MS against interferon beta-1a (also known as Rebif). The trials involved over 1,600 people and after two years, the study is reported to show that Ocrelizumab reduced the annual relapse rate by 46% and the number of lesions in the brain, as measured by MRI scans, by 94%.

UK MS Trust

How common is nerve pain in early MS?

This study of 377 people with MS examined how common nerve pain was in early MS. Nerve (neuropathic) pain is caused by damage to the nerves in the brain and spinal cord and includes trigeminal neuralgia, the MS hug, Lhermitte's sign and altered sensations such as pins and needles, numbness, crawling or burning feelings.

Participants who were experiencing nerve pain, also had significantly higher levels of depression, fatigue and disability. The study found that cognitive, motor function and fatigue test scores, as well as higher EDSS scores, were significantly related to unemployment.

The researchers concluded that health professionals could support people with MS and help them to learn management techniques to deal with, or compensate for, fatigue and cognitive symptoms that could help them stay employed.

Emotional changes in people with MS

This French study looked at emotional changes in 60 people with relapsing-remitting MS (RRMS) and 41 with primary progressive MS (PPMS). Each person with MS in the study was matched to a control participant (who did not have MS), for age, gender and level of education.

The study found that emotional changes are common in both people with RRMS and PPMS and can be found in people who do not meet the criteria for a diagnosis of depression or anxiety.

The review found that overall, the DMDs reduce the risk of increasing disability compared to participants taking a placebo. Further analysis revealed that there were no differences in the effect on disability regardless of how the drug was taken or whether it was used as first or second line treatment.

What MS symptoms affect work?

This study in the USA examined four key MS factors – depression, cognition, fatigue and motor function – to investigate their relationship with employment in a group of 53 people with MS.

Participants took three to four hour long assessment sessions completing various tests and questionnaires to assess their cognition, motor function, mood and fatigue.

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As even subtle emotional changes can have an impact on quality of life, the researchers concluded that a health professional’s ability to recognise these smaller changes help people with MS access the necessary support to manage emotional changes they experience.

MS Society of Canada

Researchers link the ‘clock’ hormone melatonin to seasonal MS relapses

MS relapse activity follows the seasons with attacks generally more frequent in spring and summer. Although the reason for this seasonal pattern is unknown, one hypothesis suggests that a factor provoked by the environment that rises and falls with the time of year may be responsible.

An international team of scientists from Argentina and the United States identified a possible candidate; the hormone melatonin, whose levels peak over the autumn/winter months and then drop off in the spring/summer months.

The authors provided strong evidence that melatonin protects against MS relapses, decreasing the number and severity of relapses during the autumn and winter months. This protective effect is diminished in spring and summer as melatonin levels subside.

Diet and Exercise

The effects of diet on MS treatment and progression are uncertain. Although a topic of interest for the MS community, conclusive evidence supporting dietary claims is scarce. Research investigating the effect of dietary manipulation on MS is challenging, as these types of studies are difficult to design and control for.

Exercise has demonstrated benefits above and beyond fitness, including neuroprotection, neurogenesis (the birth of new neurons), and improved cognitive function.

Dr Amy Latimer-Cheung from Queen’s University published an extensive review highlighting data on the effects of exercise in MS. Many studies demonstrated that exercise training improved mobility, fatigue and quality of life among people living with MS.

There are a number of clinical trials under way around the world that are providing clearer answers as to whether exercise interventions may improve MS disease.

Ocrelizumab

Ocrelizumab works by targeting a certain kind of immune cell that can contribute to the damage to the nervous system, including the nerve cells and the protective covering around nerve fibers. It is taken by intravenous infusion twice a year.

In the clinical trial data released last spring, which covered 732 people with primary progressive MS, people who took the drug had a 24 percent reduction in the progression of disability after 12 weeks compared to those who received a placebo. Study participants on the experimental medicine also experienced slower declines in walking ability and brain volume than people in the control group.

The reason that the new drug is generating so much interest, though, is that it’s the first time a therapy for primary progressive MS has had any impact at all.

And it’s the first MS drug to ever receive a “breakthrough” designation from the Food and Drug Administration, which puts the experimental medicine on a fast track to get through the review process as quickly as possible. The agency granted the designation in February this year.

Round-up of research and other items of interest

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