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IN BRIEF

MULTIPLE SCLEROSIS

Cannabis use is associated with deleterious brain changes in patients with multiple sclerosis

A small but appreciable proportion (14–18%) of patients with multiple sclerosis (MS) smoke cannabis to relieve their symptoms, but evidence is emerging that the drug affects cognition in these individuals. A structural MRI study has now identified a link between cannabis use and reduced white and grey matter volume in the brains of patients with MS. Importantly, these structural brain changes were associated with cognitive deficits. These results suggest that the benefits of cannabis use in patients with MS need to be weighed against the potential risks.

Original article Romero, K. *et al.* Multiple sclerosis, cannabis and cognition: a structural MRI study. *Neuroimage* doi:10.1016/j.nicl.2015.04.006

EPILEPSY

Seizure activity fluctuates across the menstrual cycle in women with epilepsy

The existence of catamenial epilepsy—seizures that vary in frequency across the menstrual cycle—has been the subject of much debate. In a sample of 100 women with focal epilepsy, Andrew Herzog and colleagues found that the average daily seizure frequency fluctuated throughout the menstrual cycle, with peaks around the times of menstruation and ovulation. These new data provide further evidence that catamenial epilepsy is a genuine phenomenon.

Original article Herzog, A. G. *et al.* Distribution of seizures across the menstrual cycle in women with epilepsy. *Epilepsia* doi:10.1111/epi.12969

AGEING

Plasma α-synuclein could be a biomarker of healthy ageing

A decline in plasma α-synuclein levels is a normal consequence of ageing and is not necessarily indicative of neurodegenerative disease, a new study suggests. In a sample of 80 healthy men, plasma α-synuclein levels were considerably lower in those aged 50–69 years than in those aged 22–35 years. Given that α-synuclein is being explored as a biomarker for a number of neurodegenerative diseases, including Parkinson disease, these natural variations over the lifespan are important to take into account.

Original article Koehler, N. K. *et al.* Alpha-synuclein levels in blood plasma decline with healthy ageing. *PLoS ONE* **10**, e0123444 (2015)

MIGRAINE

Repetitive sphenopalatine blockade with bupivacaine shows promise for treatment of chronic migraine

Twice-weekly delivery of the local anaesthetic bupivacaine to the sphenopalatine ganglion (SPG) for 6 weeks substantially reduces the number of headache days in patients with chronic migraine, according to a randomized controlled trial. In the last 28 days of the treatment period, patients assigned to bupivacaine experienced a mean of 19.27 headache days, compared with 24.17 days in patients who were assigned to a saline placebo. The benefits of SPG blockade were maintained at 1 month and 6 months after treatment.

Original article Cady, R. K. *et al.* Long-term efficacy of a double-blind, placebo-controlled, randomized study for repetitive sphenopalatine blockade with bupivacaine vs saline with the Tx360® device for treatment of chronic migraine. *Headache* doi:10.1111/head.12546