Age <20 years was associated with NMDA-R-IgG and MOG-IgG1 (OR=8.11 and 7.73 respectively, p<0.001). Age >65 years was associated with GABAB-R-IgG, LGI1-IgG, CASPR2-IgG and ANNA1-IgG (OR=7.33, 14.98, 3.67, 14.53, p<0.001). Women accounted for 60% of NMDA-R-IgG (CSF) and 78% of GAD65-IgG (CSF/serum) cohorts (OR=1.32, p=0.002, OR=2.78, p<0.001, respectively). Men accounted for 62% of the LGI1-IgG cohort (OR=1.87, p <0.001). Age and sex interacted for NMDA-R-IgG, particularly in females <20 years (OR=7.72, p <0.001).

Conclusion The most frequently detected were NMDA-R-IgG, LGI1-IgG, GAD65-IgG and MOG-IgG1. Age and sex associations may suggest paraneoplastic, endocrinological or aging influences on neurological autoimmunity.

004 PREGNANCY-RELATED RELAPSE IN NATALIZUMAB, FINGOLIMOD AND DIMETHYL FUMARATE-TREATED WOMEN WITH MULTIPLE SCLEROSIS

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Objective To investigate pregnancy-related disease activity in a contemporary multiple sclerosis (MS) cohort.

Methods Data were obtained from the MSBase Registry. Term/preterm pregnancies conceived from 2011-2019 were included (modern cohort). Annualised relapse rates (ARR) were calculated before, during and after pregnancy. Predictors of intrapartum and early postpartum (1st3 months) relapse were determined by clustered logistic and Cox regression analyses, respectively.

Results We included 1640 pregnancies from 1452 women. Disease-modifying therapy (DMT) used in the one-year preconception included natalizumab (n=219), fingolimod (n=147), dimethyl fumarate (DMF; n=57) and low-efficacy therapies (n=845). Preconception ARR by DMT class used before conception were: natalizumab, 0.29 (95% CI 0.22-0.37); fingolimod, 0.37 (0.28-0.49); DMF, 0.24 (0.13-0.41); low-efficacy, 0.29 (0.25-0.33); and none, 0.24 (0.19-0.31). Among women who used fingolimod or natalizumab, ARR increased during pregnancy. Intrapartum ARR decreased in preconception DMF, low-efficacy or no DMT groups. ARR spiked after delivery across all DMT groups. Natalizumab continuation into pregnancy reduced the odds of relapse during pregnancy (OR 0.76 per month [0.60-0.95], p=0.017). DMT re-initiation with natalizumab protected against postpartum relapse (HR 0.11 [0.04-0.32], p<0.0001). Breastfeeding women were less likely to relapse (HR 0.61 [0.41-0.91], p=0.016).

Conclusion Women with MS prescribed natalizumab or fingolimod preconception had higher rates of intrapartum and postpartum relapse. In women considered to be at high relapse risk, use of natalizumab before pregnancy and continued up to 32-34 weeks gestation, with early re-initiation after delivery is an effective option to minimise relapse risks. Strategies of DMT use have to be balanced against potential foetal/neonatal complications.

005 PSORIASIS IN MULTIPLE SCLEROSIS: AN AUSTRALIAN PREVALENCE STUDY

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Background Multiple Sclerosis (MS) is an immune-mediated, demyelinating disease of the central nervous system.[1] Although severe psoriasis and psoriasiform dermatitis have been noted in MS patients, the prevalence of psoriasis in these populations is uncertain and has not been explored in the Australian population.

Objectives A pilot study to estimate the prevalence of psoriasis in MS cohorts in the Australian population.

Methods A survey was conducted on 82 MS patients aged 18 and above who attended MS clinics in 2018.

Results Data was recorded for 82 patients. The mean age was 48 years for the entire cohort and 48.0 years (SD ±11.30)