

132 BRUSHSTROKES AFTER STROKE – ART AND NEUROPLASTICITY

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Introduction Despite current developments in acute stroke therapies, 65% of stroke patients have varying degrees of disability. Whilst focus on acute stroke reperfusion strategies is vital, stroke survivors still need support and appropriate opportunities for rehabilitation.

Methods and results This is an inspiring story of an 86-year old patient with locked in syndrome who rediscovered her artistic talent after a disabling stroke. She presented with right hemiparesis, bilateral ptosis, ophthalmoplegia and aphasia. Her MRI showed multiple infarcts affecting the midbrain, thalamic, cerebellar and occipital regions. There was stenosis of the right vertebral artery-the left was hypoplastic, and new atrial fibrillation was detected.

There was no response to early rehabilitation strategies and her husband decided to care for her at home. He used creative strategies to encourage motor skills and participation in daily activities, and despite never regaining speech or independent mobility, she was able to interact meaningfully with him and her environment. They enjoyed a full and active life until her demise last year.

The patient was an accomplished artist and, with the help of her husband, reengaged in painting. This resulted in an original collection of paintings that formed an exhibition in Wollongong Art Gallery.

Conclusion This is a life affirming story of love, enablement and ingenuity after disabling strokes, and a reminder that neuroplasticity can occur at any age. Art can provide a way to harness neuroplasticity to improve neurological deficits and quality of life, even despite significant disability. *‘A man paints with his brains and not with his hands.’ (Michaelangelo).*

133 B CELL DEPLETION THERAPY RESULTING IN SUSTAINED REMISSION OF SEVERE AUTOIMMUNE COMPLICATIONS FOLLOWING ALEMTUZUMAB TREATMENT OF MULTIPLE SCLEROSIS

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Introduction Alemtuzumab is a pan-lymphocyte ablating anti CD-52 monoclonal antibody licensed for the treatment of relapsing remitting multiple sclerosis (RRMS). Despite being classified as a high efficacy therapy, clinical application of alemtuzumab has been hampered by the frequent occurrence of secondary autoimmune disease (AID), with clinical trials and single-centre follow up cohorts estimating an incidence of up to 50% at seven years post treatment. Despite the establishment of pharmacovigilance programs to monitor for common complications of alemtuzumab, management guidelines for these conditions are lacking.

Methods Here, we report a series of cases of female patients treated with alemtuzumab for RRMS who developed treatment refractory secondary AID complications; specifically acquired haemophilia A (AHA) and an autoimmune encephalitis (AIE).

Results We report the sustained remission of these severe autoimmune disorders following administration of anti-CD20

therapy. This supports the current understanding of alemtuzumab associated AIDs, which occur in a time frame in which B-cell hyperpopulation and peripheral expansion occurs following initial lymphoablation.

Conclusions Thus, we suggest that B-cell depletion should be initiated early in patients with severe, refractory complications of alemtuzumab. Furthermore, we suggest vigilant monitoring of patients with a preceding history of autoimmune thyroid disease following alemtuzumab treatment, as our experience suggests these patients have already demonstrated the potential to develop secondary AID.

134 CLADRIBINE: A MULTICENTRE LONG-TERM EFFICACY BIOMARKER AUSTRALIAN STUDY (CLOBAS)

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Introduction Cladribine tablets (marketed as Mavenclad[®]) is a new oral therapy, which has recently been listed on the pharmaceuticals benefit scheme (PBS) in Australia for treatment of relapsing MS. The current dosing schedule is for 2 courses given a year apart, which has been shown to be effective for treatment of MS up to 4 years in 75% of patients (based on annualised relapse rate). However, re-initiation of therapy after year 4 has not been studied.

Methods This will be a multicentre, 6-year, phase IV, low interventional trial. Subjects considered for treatment with cladribine will receive an initial treatment course in year 1 and a continuing treatment course in year 2. After year 3, patients will have the option for re-dosing, if clinically indicated or to switch to another disease modifying therapy. Throughout the duration of the study we will assess blood based biomarkers including lymphocyte subsets, serum neurofilament light chain, DNA methylation and RNA analysis as well as MRI findings (brain volume/lesion load) and cognitive performance.

Results This study has been approved by the Hunter New England Local Health District Human Research Ethics Committee. The study is due to commence on March 14th.

Conclusions This will be the first long-term efficacy trial of cladribine which offers re-initiation of therapy after the initial two courses. We expect this study will be an indication if any of the assessed biomarkers can be used to predict treatment efficacy or the need for re-initiation of Cladribine in MS patients.