

functions including memory and spatial abilities ($p < 0.05$) while structural changes were focused on the thalamus ($p < 0.001$).

Conclusion Hallucinations are present across neurodegenerative syndromes and highest in FTD. Attentional subsystems and networks are implicated in the generation of these features that dissociate across *C9orf72* and sporadic bvFTD.

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PREDICTIVE ACUTE NYSTAGMUS CHARACTERISTICS IN POSTERIOR CIRCULATION STROKE DIAGNOSIS

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Objectives The acute nystagmus characteristics of posterior circulation stroke (PCS) were assessed and compared to acute vestibular neuritis (AVN) in the emergency department (ED)

Methods Video-nystagmography (VNG) was prospectively conducted in ED at one Australian metropolitan tertiary referral hospital over a three-year period, recording ictal nystagmus in 101 patients with radiologically confirmed PCS and 104 patients with AVN.

Results PCS locations were in the brainstem alone (34.7%), cerebellum alone (29.7%), both cerebellum and brainstem (19.8%) or other/multiple locations (15.8%) were recruited. Common PCS territories included: posterior-inferior-cerebellar-artery (38.6%), multiple-territories (20.8%), pontine-perforators (18.8%), anterior-inferior-cerebellar-artery (6.9%) and posterior-cerebral-artery (5.9%).

In PCS, 50.5% of patients had no spontaneous nystagmus. Remaining PCS patients had primary position horizontal (37.2%), vertical (8.9%) and torsional (3.9%) nystagmus. Horizontal nystagmus was 51.7% ipsiversive and 48.3% contraversive in 29 lateralised PCS. 28.4% of PCS patients had pathologic gaze-evoked nystagmus. Most PCS patients with horizontal nystagmus (60.5%) had unidirectional 'peripheral-appearing' nystagmus

In contrast, AVN patients almost universally (98.1%) had primary position horizontal nystagmus. No AVN patient had gaze-evoked nystagmus. Horizontal nystagmus with $SPV \geq 5.4$ / s distinguished AVN from PCS with sensitivity and specificity of 90.3% and 89.1%.

Absent nystagmus, gaze-evoked direction-changing nystagmus, and vertical/torsional nystagmus were all highly specific for PCS (100%, 100% and 98.1%).

Conclusion Most patients with PCS had concerning benign features such as absent nystagmus or unidirectional 'peripheral-appearing' horizontal nystagmus acutely. Comparatively, all AVN patients had nystagmus acutely. This study reinforces a new paradigm in vestibular neurology that absence of findings does not equate to absence of pathology.

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PRETREATMENT PERIPHERAL IMMUNE CELL RATIOS AS PROGNOSTIC BIOMARKERS IN GLIOMA PATIENTS

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Background In the glioma microenvironment, elevated immune cell ratios are posited to reflect systemic response to malignancy. Given the dearth in clinically significant molecular markers to predict prognosis, there is potential for immune cell ratios to serve as low-cost and readily available prognostic markers.

Objectives This study evaluated the ability for pretreatment peripheral immune cell ratios (Neutrophil-to-Lymphocyte Ratio, NLR, and Monocyte-to-Lymphocyte Ratio, MLR) to predict overall survival (OS) and modified Rankin Scale (mRS) at admission, 6 months and 12 months post-diagnosis. It also explored relationships between immune cell ratios and clinicopathological parameters (tumour location, tumour size, tumour grade, IDH-1 mutation, MGMT promoter methylation status).

Methods Pretreatment NLR and MLR were analysed retrospectively in 64 glioma patients from Royal Melbourne Hospital. OS was evaluated with the Kaplan-Meier method. Prognostic factors for OS and mRS were evaluated with univariate and multivariable regression analyses.

Results Higher pretreatment NLR (>4.7), compared to lower pretreatment NLR (≤ 4.7), predicted higher mean admission mRS ($p < 0.001$) and 6-month mRS ($p = 0.02$). Higher NLR was associated with poor functional outcome (mRS 3–6) at admission ($p < 0.001$) and 6 months ($p = 0.001$). Higher pretreatment MLR (>0.35) predicted poorer OS ($p = 0.02$). Higher NLR was associated with larger tumour diameter (≥ 5 cm) ($p = 0.02$).

Conclusion To our knowledge, this was the first study to evaluate the association between immune cell ratios and mRS. This study demonstrated that NLR and MLR can serve as prognostic markers to predict functional outcomes and OS in glioma patients, which allows us to identify high-risk patients in need of further treatment.

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IVIG-EXPOSURE AND THROMBOEMBOLIC EVENT RISK: COHORT STUDY USING THE UK BIOBANK

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