EPR-150 | Identifying comorbidity profiles in migraine patients: results from the REFINE study

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Background and aims: Migraine is a leading cause of disability among young individuals worldwide. While preventive treatments improve outcomes for many, resistant and refractory migraine cases often fail to respond. This study aimed to identify specific comorbidity patterns in patients with resistant and refractory migraine.

Methods: The REFINE study included 689 patients classified as resistant, refractory, or non-resistant/non-refractory migraine according to European Headache Federation criteria. A Latent Class Analysis (LCA) was conducted using eight comorbidities associated with migraine—obesity, autoimmune/rheumatological disorders, psychiatric diseases, cardiovascular disorders, gastrointestinal conditions, chronic pain, allergic/respiratory conditions, and musculoskeletal disorders—and the EHF diagnosis as variables.

Results: The three-class model provided the best fit (BIC = 6065.292). Class 1 comprised 30.99% of patients, with the highest prevalence of resistant (22.8%, vs. 13.9% in Class 2 and 14.6% in Class 3) and refractory migraine (33.2%, vs. 5.2% in Class 2 and 4.1% in Class 3). Class 1 also showed the highest prevalence of chronic pain (77.8%), psychiatric disorders (85.9%), and allergic/respiratory conditions (32.2%). Obesity was present in 100% of Class 1 and Class 3 but absent in Class 2. Autoimmune/rheumatological disorders affected 32.2% of Class 1 patients. Cardiovascular (27.9%) and gastrointestinal conditions (5.7%) were less frequent in Class 1.

Conclusion: LCA identified a class with a higher prevalence of obesity, psychiatric disorders, and chronic pain, significantly associated with resistant and refractory migraine, suggesting the need for tailored management strategies.

Disclosure: Nothing to disclose.

EPR-151 | Glymphatic dysfunction in migraine mice model

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Background and aims: The glymphatic system is crucial for waste removal in the central nervous system, facilitated by aquaporin-4 (AQP4) at astrocytic ends. While it is involved in several neurological disorders, the link between the glymphatic system and migraine remains unclear.

Methods: Using a nitroglycerin-induced migraine model in C57BL/6 mice, we examined glymphatic function by assessing cerebrospinal fluid (CSF) tracer influx. AQP4 expression and polarization were also measured. To investigate the role of glymphatic dysfunction, mice were treated with TGN-020, an AQP4 blocker.

Results: In the migraine model, glymphatic CSF influx was reduced, and AQP4 expression and polarization were impaired, indicating glymphatic dysfunction. Further inhibition of glymphatic function with TGN-020 worsened migraine-related pathology in mice.

Conclusion: The findings suggest that glymphatic dysfunction may exacerbate migraine pathology. These results highlight the potential role of the glymphatic system in migraine, offering new targets for prevention and treatment.

Disclosure: Nothing to disclose.

Movement disorders 2

EPR-152 | Characteristics of patients with Parkinson´s disease treated with a device-aided therapy. A comparative analysis

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