

Headache

Evaluation of rimegepant utilization patterns for acute and preventive treatment of migraine in a commercially insured population

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Objective: Assess the utilization and patient characteristics of rimegepant, an oral calcitonin gene-related peptide (CGRP) antagonist approved for migraine treatment and prevention in the United States.

Methods: This retrospective cohort study using US MarketScan administrative claims databases included patients ≥ 18 years old who newly initiated rimegepant with ≥ 1 refill between March 1, 2020 and January 31, 2023. Patients were divided into acute treatment (quantity=8 tablets) or prevention (quantity=15 or 16 tablets) cohorts, based on the index quantity dispensed, stratified by before and after the addition of the prevention indication (June 1, 2021). Utilization periods were defined as the time between the first and last prescription fills with an additional 90 days for ‘as-needed’ use. Patient characteristics and treatment history were assessed in the six months prior to index.

Results: Overall, 16,177 rimegepant users were identified. Among acute treatment users, tablet utilization (mean \pm standard deviation) was 4.5 ± 2.2 tablets per 30 days over a follow-up period of 340 ± 187 days. Respective numbers among prevention users were 8.7 ± 2.8 tablets per 30 days and 225 ± 90 days. Rimegepant users (aged 43 ± 11.5 years; 88.4% were female) commonly used triptans (58.3%), non-steroidal anti-inflammatory drugs (35%), anti-CGRP monoclonal antibodies (30.5%), and opioids (30.3%) prior to initiation.

Conclusions: Tablet utilization for rimegepant acute treatment users was consistent over time and similar to literature benchmarks for migraine frequency. Lower than expected utilization in the assumed prevention users may be due to variable use patterns that requires further investigation.

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Predicting likelihood of idiopathic intracranial hypertension from imaging: A retrospective audit

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Objective

This retrospective audit was carried out with the aim of identifying if MRI features in patients suspected of Idiopathic intracranial hypertension (IIH) are statistically significantly associated with the diagnosis.

Methods

MRI images of all patients diagnosed with IIH according to modified Dandy criteria and an age and gender matched group of patients who had a diagnosis of migraine were re-reviewed by a neuroradiologist who was blinded to the final diagnosis and clinical history. We looked at 17 features in the MRI.

Results

When each of the MRI features were considered separately (univariate analysis), seven features were statistically significantly associated with IIH ($p < 0.05$). However, after adjusting for multiple comparisons and excluding collinearity, only optic nerve sheath distension (ONSD), peri-optic cerebrospinal fluid diameter and posterior globe flattening were associated with a diagnosis of IIH (Bonferroni adjusted p value < 0.005).

Conclusion

While no individual feature could predict occurrence of IIH, Two or more MRI features. (ONSD / Peri-optic CSF diameter / posterior globe flattening, Right Meckel's curve AP diameter > 11.5 , Bright spot at fundus, Optic nerve tortuosity, Partial empty Sella) had a good sensitivity, specificity, positive and negative likelihood ratios. Radiologists' opinion regarding overall appearance was significant and this prediction was better for patients with high opening pressure. The imaging features identified in this study as being associated with IIH may be potentially useful to train an artificial intelligence-based algorithm to predict the likelihood of IIH from MRI, which in turn may be independent of the experience of the interpreter.

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Dual biological therapy in migraine with autoimmune rheumatic disease: is it plausible?

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Objectives: It is not clear whether migraine-type headache is a specific manifestation of an autoimmune disorder or a comorbidity which needs a better comprehension. Biological therapy is often indicated for both conditions separately, but data on dual therapy is still lacking.

Results: A 43 years old woman, was referred to a neurologist for severe migraine headaches. At the age of 24 she developed hands, hips pain and was diagnosed with HLA-B27 negative ankylosing spondylitis (AS). Due to high AS activity, the effect of NSAIDs and glucocorticosteroids became insufficient over the time. Biological therapy with adalimumab was added and later changed to etanercept. Rheumatological follow-up continued, the previous symptoms improved, but at the age of 41 migraine-type headaches became more frequent and intense, occurred 16-17 days a month and lasted up to 72 hours. The patient indicated pronounced prodrome (fatigue) and accompanying symptoms (nausea, vomiting, photophobia). The neurological status was normal and brain MRI showed no significant changes. The condition met the criteria for migraine without aura and triptans were prescribed. As beta-blockers, NSAIDs were ineffective, biological therapy with fremanezumab 225 mg s/c per month was added. Headaches frequency reduced to 4 days a month, attacks became milder and the need for triptans decreased. Etanercept was also continued for AS.

Conclusions: Fremanezumab and etanercept was effective and well-tolerated. There is a lack of data on dual biological therapy in different pathologies. It still remains a controversy whether to prescribe biological drugs targeting various pathophysiological mechanisms and what combinations should be avoided.

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Migraine and disability from EHIS perspective

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Disability is the main feature of migraine related disease. Self-reported disability (SRD) can be useful tool for assessment disability. It represents the perception of patient's feeling and self-efficiency. The relationship with other socioeconomic, health related factors and other disease could be determined. Therefore, we explored the migraine's self-reported disability in Slovene population. The survey EHIS (European Health Interview Survey), conducted 2019, included 9900 adults, aged 15 years or older. Binary logistic regression was used in univariate as well as in multivariate analysis. Three multivariate models were defined - MODEL 1 consisted of stroke and comorbidities related to physical dimension of health, MODEL 2 consisted additionally of comorbidities related to mental dimension of health, while MODEL 3 consisted additionally of demographic and socioeconomic factors. In univariate analysis all included factors related to SRD. In multivariate analysis, MODEL 1, all included factor were significant and migraine related to SRD ($p < 0.001$). The strength of association did not change importantly. In MODEL 2 the factors of mental health additionally included into analysis. The relationship between migraine and SRD became insignificant ($p = 0,116$) and strength of association importantly decrease. In the MODEL 3 which contained sociodemographic factors the association between migraine and SRD was low but significant ($p = 0.001$). We have concluded migraine related to SRD in Slovenia. Disability associated with migraine could mostly be related to factors of mental dimension of health. Thus coping strategies should be directed toward prevention of mental comorbidies of migraine.

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Anticephalgic Mask

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A study was performed with 36 migraine patients. All patients applied a topical medication containing Rhus Toxicodendron and Bryonia in conjunction with a photoprotective mask. 33 of the 36 patients stated that the treatment was extremely effective. On a 0-10 scale the average rating was 8.2. Furthermore, the average time to significant relief was approximately 20 minutes. There were no allergic reactions or significant side effects. The patients were able to cut down on opioids and other systemic migraine medications. Such a treatment is effective, quick, safe, and inexpensive. No rebound headaches were reported.

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Rare case of pediatric episodic migraine.

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We report a 3,5-year-old boy , who was referred to our clinic by his primary care physician for evaluation of headache. He had normal birth/developmental history. His family had no remarkable medical history including headaches and dysautonomia. Parents reported that child had severe, sharp, pulsating headache since he was 2,5 years . No precipitating factor was detected such as head trauma, illness, asthma attack, and so on. These painful attacks were strictly left sided, lasting 48-72 minutes and located in the orbitofrontal and temporal regions, without any side shift. Frequency of pain attacks was once in a month during last year, had a sudden onset with a clear end, and were associated with left unilateral autonomic symptoms (conjunctival injection, lacrimation. Child becomes irritable, does not want to get out of bed, lies with his eyes closed, refuses to eat(photophobia, phonophobia), also fatigue, nausea, vomiting were present during headache. During the interictal period, he felt no pain and have normal daily activity. Neurological examination and blood tests was normal. Magnetic resonance imaging (MRI) did not show any brain abnormalities. EEG revealed no abnormalities. Taking into account the clinical manifestation, a diagnosis of episodic migraine mas made for the child. He was prescribed to take ibuprofen during headache attack and lifestyle modification. There is a significant risk of overlooking migraines in pediatric cases. Ensuring a proper diagnosis is crucial for preserving a high quality of life and preventing the use of inappropriate treatments.