Abstracts

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Smartphone Use and Primary Headache: A Cross-Sectional Hospital-Based Study

Objective To determine the association of smartphone use with occurrence of new-onset headache and/or increased severity of headaches in patients with primary headache.

Methods In a cross-sectional study between June 2017 and December 2018, patients with primary headache were divided into 2 groups: smartphone users (SUs) and nonsmartphone users (NSUs). A questionnaire was administered for headache characteristics and treatment taken. The primary objective was to determine the association of smartphone use with new-onset headache or increase severity. The secondary objective was to determine any differences in the requirement of acute medication and prophylaxis.

Results Four hundred patients were included in the study, of which 194 were NSUs and 206 were SUs. The NSUs were older with lower education and socioeconomic status. The headache characteristics were similar in both the groups, except for higher occurrence of aura (NSUs: 15 [7.7%] vs SUs: 36 [17.5%]; p = 0.003) in the SU group. There was, however, higher proportion of patients taking analgesics (NSUs: 157 [80.9%] vs SUs: 197 [95.6%]; p < 0.001), with less relief in headache with medication in the SU group. This was driven by increased pill count (low SUs: 5.0 [3.0; 10.0] vs high SUs: 10.0 [5.0; 15.0]; p = 0.007) and poor response to medication in the high SU group.

Conclusions The use of smartphone was associated with increase in requirement of acute medication and less relief with acute medication. Longitudinal studies may be required to confirm these findings.

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Lymphocyte Reconstitution After DMF Discontinuation In Clinical Trial and Real-World Patients With MS

Background Delayed-release dimethyl fumarate (DMF) has demonstrated robust efficacy in treating patients with relapsing-remitting multiple sclerosis. Decreases in absolute lymphocyte count (ALC) are a well-known pharmacodynamic effect of DMF treatment, but lymphocyte recovery dynamics are not well characterized after discontinuation of DMF.

Methods Data sources included the Biogen DMF integrated clinical trial data set, a retrospective US chart abstraction study, and data from MSBase. We assessed rate and time course of lymphocyte reconstitution after DMF discontinuation.

Results Most patients who developed lymphopenia while treated with DMF and subsequently discontinued treatment experienced ALC reconstitution. The median time to reach ALC ≥0.8 × 10^9/L was 2–4 months after discontinuation in real-world data sets; the median time to reach ALC ≥0.91 × 10^9/L was 2 months after discontinuation in DMF clinical trials. Severity of lymphopenia on treatment and decline in ALC within the first 6 months did not affect the ALC reconstitution rate after DMF discontinuation; rather, on-treatment lymphopenia duration influenced the reconstitution rate. In patients with severe, prolonged lymphopenia for ≥3 years, lymphocyte reconstitution to ≥0.91 × 10^9/L was 12–18 months vs 2–3 months in patients with lymphopenia persisting <6 months.

Conclusions Most patients who discontinued DMF because of lymphopenia experienced ALC reconstitution within 2–4 months after DMF discontinuation. This may help guide clinicians in managing patients who develop lymphopenia during DMF treatment. Prolonged lymphopenia on DMF treatment is associated with slow lymphocyte recovery after DMF discontinuation.

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