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WHEN PILLS DO NOT WORK : GASTROPARESIS IN MIGRAINE

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Introduction: An understanding of gastric dysmotility is important to patients and physicians since it has implications in treatment of migraine.

Objectives: Gastric stasis has long been implicated in association with migraine. In this abstract we review the current state of scientific evidence that exists for migraine and gastric stasis.

Methods: Key words, gastric stasis, migraine, autonomic dysfunction were used to obtain relevant studies in a literature search.

Results: Early experimental studies by Volans et al. reported a delay in effervescent aspirin absorption in 19 out of 42 migraineurs during an attack, but not during the headache free period. These studies suggested delayed gastric emptying occurs during spontaneous migraine attacks. This hypothesis was questioned when studies demonstrated delay in gastric emptying during visually induced migraines and during the headache free interictal period. Using gastric scintigraphy the rate of gastric emptying was measured in 10 migraineurs and 10 age and sex matched controls. The time of half emptying after an induced migraine attack was delayed 78% ictally and 80% interictally in migraineurs and compared to non-migraine controls the time to half emptying was significantly longer at 188.8 minutes compared to 111.8 min. Subsequently, Aurora and colleagues confirmed findings of delayed half emptying during spontaneous migraine attacks as well. Another study found contradictory results in migraineurs without interictal dyspepsia symptoms. Compared to migraineurs, subjects with functional dyspepsia had more delayed gastric emptying (Yu 2012). However, a study evaluating liquid phase gastric emptying observed delayed ictal but not interictal gastric emptying in migraineurs compared to controls (Yalcin 2012). In a survey of 516 patients diagnosed with gastroparesis in the NIH Gastroparesis consortium, migraine was the most common extra-intestinal comorbidity (36.6%). This presence of migraines was associated with more severe gastroparesis symptoms.

Conclusion: The association between gastroparesis and migraine may be under recognized. Conflicting findings in studies may be due to test methodology or the variability in migraine phenotype. Attention to this comorbidity may be particularly important if patients have symptoms of nausea, vomiting and/or abdominal pain who do not experience relief of migraine symptoms using oral abortive treatment. Route of administration and formulation may have an impact on absorption and hence efficacy of migraine therapies.

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