

MEDICAL BREAKTHROUGHS **RESEARCH SUMMARY**

TOPIC: MITIGATING MIGRAINE: NEW MEDICATION IS A GAME CHANGER!
REPORT: MB #4766

BACKGROUND: A migraine is a primary headache disorder causing severe throbbing or pulsing pain, typically on one side of the head, accompanied by nausea, vomiting, and sensitivity to light or sound. Some people experience warning symptoms called auras which can include visual disturbances such as flashes and blind spots, auditory disturbances like hearing noises or music, tingling in the face or extremities, and difficulty speaking. Migraines can begin to appear in childhood, adolescence, or early adulthood. Patients should seek out a doctor if they start to experience new extreme headaches after the age of fifty. Migraines can also have four stages, prodrome, which usually occurs a few days before migraine onset and can include symptoms like constipation, mood changes, increased thirst, urination or food cravings, and frequent yawning. The next stage is aura, which, for some people who experience them, usually occurs during migraine and causes visual and auditory phenomena. Next is attack, this is the main strike of a migraine and can last anywhere from four to 72 hours if untreated and usually includes pain, sensitivity and nausea. Last is post-drome, which follows a migraine attack and can leave patients feeling drained, confused, and washed out for up to a full day. However, not every patient that experiences migraines will experience all four stages.

(Source: <https://www.mayoclinic.org/diseases-conditions/migraine-headache/symptoms-causes/syc-20360201>)

DIAGNOSING: The exact causes of migraines are unknown, but researchers are thinking that it might be due to abnormal changes in the brain's chemicals. This can cause inflammation and swollen blood vessels that could explain the pain. Patients that are known to experience migraines can have attacks triggered by external factors. Things like sleep abnormalities, skipped meals, menstrual hormones, weather changes, alcohol, caffeine, and foods that contain certain preservatives or sugars like nitrates, monosodium glutamate, tyramine, and aspartame. Doctors suggest keeping track of headaches so that patients can better identify their triggers and avoid them. Migraines can be chronic and debilitating and cause school, work, and socialization loss in addition to pain. Migraines often affect more women than men worldwide and can last anywhere from four hours to three weeks at a time.

(Source: Teshamae Monteith, MD <https://www.womenshealth.gov/a-z-topics/migraine>)

NEW TECHNOLOGY: In 2018 three drugs were approved by the FDA that treat migraines by targeting and blocking the calcitonin gene-related peptide pathway, or CGRP pathway. CGRP is a protein that is released in the brain and can cause inflammation of the meninges that line the skull. Blocking this protein with monoclonal antibodies is the pathophysiological basis for these new drug treatments. The first of three treatments are done by patient self-injection with a subcutaneous auto-injector, similar to that of an EpiPen. With the last being performed by intravenous infusion, or an IV, at the doctor's office. The drug is extremely tolerable and most patients only reported side-effect is injection site irritation or pain. However, this pain is usually not a reason for patients to stop, as the migraine pain is far worse. Chronic migraine patients have reported going from fifteen plus headaches a month to about six. Dr. Monteith says its biggest strengths are that "it has long term cumulative or persistent benefits."

(Source: Teshamae Monteith, MD

<https://americanmigrainefoundation.org/resource-library/what-to-know-about-the-new-anti-cgrp-migraine-treatment-options/>)

FOR MORE INFORMATION ON THIS REPORT, PLEASE CONTACT:

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If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting

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