Aug 12, 2019

Will CGRP Antibodies Be a Blockbuster for Migraine Treatment? I

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1 Works for me dx.doi.org/10.17504/protocols.io.6eshbee

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ABSTRACT

Pain management drugs have always been the world of small molecules, as well as migraine. On September 28, 2016, Amgen announced that the first phase III of Erenumab to prevent high-frequency episodes of migraine has reached the primary end point, becoming the first phase III clinically successful migraine treatment antibody, which is expected to open another for migraine treatment and even pain treatment. A door.

Migraine and its harmfulness

Migraine is a severe pulsatile and recurrent headache on one or both sides of the head, with pain durations ranging from 4 hours to 72 hours. Migraine is not just a headache. Patients are often sensitive to external environments such as sound, light, and odor, with symptoms such as nausea, blurred vision, and vomiting.

Ischemic stroke, angina pectoris, and transient cerebral hemorrhage in patients with migraine are higher than those in patients without migraine. Studies have shown that migraine is an independent risk factor for stroke. Migraine also co-exist with a variety of diseases, such as epilepsy, depression and affective disorders, but also affect the cognitive function and speech ability of patients.

Migraine is the third most prevalent disease in the world. The incidence rate in the United States is 12%, with female patients (18%) being three times as many as male patients (6%) and children being 10% (small differences in gender), while the incidence rate in China is about 9.3%. 70-80% of patients have a family onset, and the most common age is 15-55 years old. According to the frequency of the disease, it can be divided into paroxysmal migraine and chronic migraine. About 30% of migraine patients have high-frequency migraine (4-14 days/month) and 8% have chronic migraine.

Research progress

The medical community has limited understanding of the mechanism of migraine attack, which seriously hinders the development of effective treatment methods. It was previously thought to be caused by the expansion of the blood vessels in the head, which is the basis for early drug design. It is now slowly believed that migraine is a neurological disease associated with changes in the nervous pathways and chemicals in the brain. At present, the treatment of migraine is divided into episode drug therapy, interstitial prophylactic drug therapy and adjuvant therapy/non-drug therapy.

Researchers at King's College London have recently published their latest research in the New England Journal of Medicine, opening a new path for migraine treatment. The therapy is based on cd33 antibody drug called erenumab, which is effective in reducing the onset time and even preventing migraine. Its therapeutic principle is to block CGRP antibody(calcitonin gene-related peptide) receptors involved in migraine activation.

The researchers conducted a six-month trial of 955 patients with paroxysmal migraine. These patients had an average of 8 days of migraine every month. The researchers injected 70 mg of erenumab into 317 patients, 140 mg of erenumab in 319 patients, and placebo in 319 patients. As a result, the number of days of migraine attacks in patients who received 140 mg of erenumab decreased by half per month.

Even more encouraging is that erenumab reduces the impact of migraine on the patient's daily activities and reduces the damage to the patient's body. Some scholars have pointed out that erenumab has significant and long-term tolerance, and its overall safety is similar to placebo.

EXTERNAL LINK

https://www.creativebiolabs.net/anti-cd33-antibody-80339.htm

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