

Blocking CGRP and CGRP receptor for migraine prevention – the positive view.

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Up to 30% of patients with migraine overall have frequent or chronic migraine attacks, with severe socioeconomic consequences for the individuals. A number of drugs are approved for prevention of migraine but none of these was designed for the purpose of prevention. A number of calcitonin gene-related peptide (CGRP) acting monoclonal antibodies have emerged and proven to be effective. Overall the antibodies resulted in a 1.5 – 2 day reduction in the number of headache days per month compared to placebo, and a 3.5 – 5 day reduction in monthly migraine days compared with baseline. This response is comparable with that of the older medications but most importantly the antibodies have excellent tolerability. The CGRP system and its role in migraine was outlined during >3 decades of basic research before it found a place in therapy. However, many aspects remain to determine; where do the new medications act, how do they modify pain signaling, why so little side-effects when CGRP is present in most parts of the body. Recent work has demonstrated a rich distribution in the CNS of CGRP family of peptides and their respective receptors. Why do we not see CNS interactions? Obviously the blood-brain barrier prevents their entrance. Anyhow, the new monoclonal antibodies towards CGRP and its receptor provides a major breakthrough in understanding migraine pathophysiology and offer a new treatment alternative for prevention of attacks in the migraine patients.