

INNOVATIVE HEADACHE TREATMENTS WILL BE BETTER THAN WHAT WE CURRENTLY HAVE. NO

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The serotonin receptor 5-HT_{1B/1D} is believed to be the most important receptor in the migraine genesis. This discovery has led to the development of analogous triptans medications that have proven to benefit numerous migraine patients around the world. Triptan medications revolutionized the treatment of migraine by stopping the headache and related symptoms rather than solely analgesic. These medications are the number one choice by knowledgeable practitioners in treating their migraine patients whose lives have been transformed by finally proving relief, not by producing transformed migraine! The pain and associated symptoms of migraine are a result of the release of inflammatory cytokines and other proteins, substance P, CGRP and neurokinin A from the sensory C fibers. The triptans decrease the migraine by blocking neuropeptide release and thereby prevent neurotransmission on second order neurons in the trigemino-cervical complex. Central sensitization is initiated by the peripheral sensitization initially yet may be sustained independently and release prostaglandins. These are effectively blocked by NSAIDS which have been available for years. However if triptans are used quickly, they hyperpolarize trigeminal nerve endings and inhibit release of CGRP, substance P and glutamate. These two remedies have been the most superior and efficacious treatment for migraine thus far.

Indeed not all patients respond for various reasons known and unknown. Other remedies are now available for special situations such as for example, cluster headache, nocturnal episodes, mixed muscular contraction headaches, SUNCT, comorbidities and patients with contraindications, HBP, CAD, pregnancy etc. Some newer treatments have been developed and proposed yet most if not all are either redundant, or are placebos or not proven to be effective, or have undesirable adverse effects or are too invasive, or cumbersome or expensive. Some of these have been extensively studied and have groups of proponents who are very optimistic. Some have not been approved by certain controlling agencies. Many have had very limited exposure. I have listed some of these below and will subsequently comment on each in some detail.

Surgery (Not ready for prime time)

Botox

Stem Cells (major Rx with chemicals from processing)

Beta Blocker eye drops (beware of side effects)

Peripheral nerve blocks (only short term)

LSD (Risk incarceration)

Lasmitidan (Targets 1F not 1B or D)

CGRP Ab or antagonists (? statistically significant and adverse effects, so far)

Epidural steroids (Poor evidence and risks)

TMS (A bit bulky) http://www.eneura.com/images/stms_tech.gif

Sphenopalatine stimulation

Vagus nerve stim (VNS)

TENS (AC) or tDCS

Occipital nerve stim (requires implantation of stim)

IV Mg⁺⁺

Xyrem for chronic cluster (Rare cases)

Melatonin (NG)

So far, in my humble opinion, none are better than the triptans with or without NSAIDS.