Topiramate and acetazolamide were equivalent in the treatment of idiopathic intracranial hypertension, but placebo comparison was lacking.

Clinical Problem: A 25 year old woman diagnosed with idiopathic intracranial hypertension 2 months ago presents with new onset visual obscurations and diplopia. On visual field testing she has mild visual field defects.

Clinical Question: What is the evidence for use of medication for idiopathic intracranial hypertension with visual field defects? How safe is the treatment?

Search Strategy: Cochrane collaboration: Searched for idiopathic intracranial hypertension AND therapy – No relevant articles found. PUBMED: searched for idiopathic intracranial hypertension AND therapy limited to Human, English and RCT – 11 articles were found of which only one was relevant.

Clinical Bottom Lines:

1. In the treatment of idiopathic intracranial hypertension, there was no significant difference in outcomes between the topiramate and acetazolamide groups.
2. Studies comparing medical treatment to placebo are necessary for further assessment of the effectiveness of treatment.

The Evidence:

40 patients from a single centre with idiopathic intracranial hypertension, assigned randomly to treatment with either acetazolamide or topiramate were assessed prospectively in an open label study. The demographic characteristics, clinical features and the CSF pressure of the two treatment groups were similar at the beginning of the study. Primary endpoint included change in the visual field defect grades at 3, 6 and 12 months. Secondary end points included papilledema, transient visual obscurations, diplopia and headache. Assessment of outcomes was not blinded.

Data:

1. When follow up visual field grades were compared with the visual field grades at the beginning of the study, a statistically significant improvement was noted in both groups.
2. No statistically significant difference was detected between the two groups.
3. Side effects in the acetazolamide group included fatigue and tingling of hands and feet. Side effects in Topiramate group included distal paresthesias, concentration difficulties and weight loss, which was statistically significant.
4. No placebo group was used.

Comments:

1. Although the study was randomized it was not concealed and the outcome assessment was not blinded.
2. Since no placebo group was used it is difficult to assess the significance of the outcome.
3. Topiramate may be beneficial in treatment of IIH as it causes weight loss as well as decreased production of CSF.
4. There does not seem to be a consensus about which clinical end point should be used to evaluate treatment of IIH. Prevention of visual loss, improvement of headache, papilledema, visual field defects and decreased ICP could all be used.


Key Words: idiopathic intracranial hypertension AND therapy

Appraiser: Sasipriya Perera and the UWO Evidence Based Neurology Group

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