Tiagabine add-on for drug-resistant partial epilepsy.

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Abstract

BACKGROUND:

Epilepsy is a common neurological condition, affecting almost 0.5 to 1 per cent of the population. Nearly 30 per cent of people withepilepsy are resistant to currently available drugs. Tiagabine is one of the newer antiepileptic drugs and its effects as an adjunct (add-on) to standard drugs is assessed in this review.

OBJECTIVES:

To evaluate the effects of add-on treatment with tiagabine upon seizures, side effects, cognition and quality of life for people with drug-resistant localization related seizures.

SEARCH STRATEGY:

We searched the Cochrane Epilepsy Group trials register (28 March 2002), the Cochrane Controlled Trials Register (Cochrane Library Issue 1, 2002), MEDLINE (1966 to November 2001). In addition, we contacted Sanofi~Synthelabo (makers of tiagabine) and experts in the field to seek any unpublished or ongoing studies.

SELECTION CRITERIA:

Randomized placebo controlled add-on trials of people of any age with localization related seizures, in which an adequate method of concealment of randomization was used. The studies could be double, single or unblinded and be of parallel or crossover design. They had to have a minimum treatment period of eight weeks.

DATA COLLECTION AND ANALYSIS:

Two reviewers independently selected trials for inclusion and extracted data. Any disagreements were resolved by discussion. Outcomes investigated included 50 per cent or greater reduction in seizure frequency; treatment withdrawal; side effects; effects on cognition and quality of life. The primary analyses were by intention-to-treat. Worst case and best case analyses were also calculated for seizure outcomes. Dose response was evaluated in regression models.

MAIN RESULTS:

Three parallel group and two crossover group trials were included. The overall relative risk (RR) for a 50 per cent or greater reduction in seizure frequency (tiagabine versus placebo) was 3.16(95% confidence interval 1.97 to 5.07). Due to differences in response rates among trials, regression models were unable to provide reliable estimates of responses to individual doses. The RR for treatment withdrawal was 1.81(95% confidence interval 1.25 to 2.62). The 99% confidence interval for the following side effects: dizziness; fatigue; nervousness and tremor did not include unity, indicating that they are significantly associated with tiagabine. For cognitive and quality of life outcomes the limited data available suggested that there were no significant effects on cognition and mood and adjustment.

REVIEWER'S CONCLUSIONS:

Tiagabine reduces seizures frequency but is associated with some side effects when used as an add-on for people with drug-resistant localization related seizures.