Lacosamide in patients with temporal lobe epilepsy: a multicentric observational open label study

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Objective: Lacosamide (LAC) is a novel antiepileptic drug approved in Europe as adjunctive treatment for adults with partial seizures with or without secondary generalization; moreover it was recently approved also for monotherapy in U.S.. In this study, we aimed to evaluate the efficacy and tolerability of LAC both as ‘add-on’ therapy or monotherapy in patients with temporal lobe epilepsy (TLE).

Materials and methods: we reviewed the clinical and instrumental records of 81 patients (mean age 44.7 ± 12.37; 45 females) with a diagnosis of TLE according to ILAE Classification (2001). The following clinical characteristics were noted: sex, age, family history of epilepsy and febrile convulsions, onset of seizures, antiepileptic drugs (AEDs) used together with LAC. All patients underwent several interictal awake and sleep electroencephalograms (EEG) and a 3 Tesla MRI scanner with specific protocol for epilepsy patients. Patients received LAC as monotherapy or with other AEDs. Seizure frequency, adverse effects were observed and follow-up was conducted for 6 to 52 months (median 12 months). Efficacy of antiepileptic therapy was assessed by measuring changes in seizure frequency, classifying patients, into four categories: those achieving seizure freedom, those achieving ≤ 50% reduction in seizures, those who achieve ≥ 50% reduction in seizures and non responders.

Results: 58 out of 81 patients (71%) had hippocampal sclerosis (HS). Seven patients were on monotherapy (after switching), 33 patients received bi-therapy LAC plus another AED whereas 41 patients received a politherapy. The mean dose of LAC was 318.06 ± 101.99 mg. Fifty-two out of 81 (64%) patients were responders (in detail, 15 were seizure free, 22 achieved a reduction ≥ 50%, 15 achieved a reduction ≤ 50%), 29 out 81 (35%) were non responder. Dividing the whole group in patients taking, in association with LAC, sodium channel blockers, SCBs (24, 29%) or not, n-SCBs (50, 61%), the portion of responder was higher in patients who received LAC with a n-SCB drug (66% vs 50%). All the 7 patients switched to a LAC monotherapy were responders (5 out 7 patients were seizure free, follow-up 6-30 months).

Discussion and conclusion: our results may suggest that LAC at doses of 200 to 400 mg/day reduces seizure frequency in adults with TLE with and without HS. Responder rates may be higher when LAC is used with an other nSCB drug. Finally, our data shows that LAC is well tolerated, and it can be effective, in selected cases, also as monotherapy.

References