ASSESSING THE EFFECTIVENESS OF PERAMPANEL AS ADJUNCTIVE THERAPY IN ADULT PATIENTS WITH REFRACTORY FOCAL SEIZURES

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Purpose:
To assess efficacy and tolerability of perampanel (PER), a novel, highly selective, non-competitive AMPA receptor antagonist, as add-on treatment in adult patients with refractory focal seizures, in a real-life setting.

Method:
This retrospective study was conducted in patients aged ≥18y, previously diagnosed with refractory focal seizures in our Epilepsy Unit.
From May 2015 to October 2015 46 patients were consecutively started on PER as an add-on treatment.
PER was titrated based on SmPC: treatment was started with 2 mg/day at bedtime, and was up-titrated by 2 mg/day every 2-4 weeks up to a maximum of 10 mg/die.
Efficacy endpoints included: a) change of seizure frequency; b) responder rate (seizure frequency reduction≥50%); c) reduction of concomitant antiepileptic drugs (AEDs); d) EEG improvement. We also monitored the occurrence of adverse events and withdrawal due to adverse reactions.

Results:
All patients were Caucasians; mean age was 38.9 years, and they were 65% females. Patients were receiving 2.89±0.95 concomitant AEDs and had previously received a mean of 7.7±3.30 AEDs.
Mean duration of disease was 27.7±12.90 years, with mean age at onset 10.87±8.03 years. 29 patients had structural–metabolic focal epilepsies, 17 focal epilepsies of unknown origin. Baseline seizure frequency was 11.2±10.95 seizures/month.
After 6 months of treatment, 76.5% of patients reported an improvement in seizure frequency, while 23.5% reported no differences or worsening. The responder rate was 58.8% (fig.2).
11 patients (23.9%) had the dose of at least 1 concomitant AED reduced, while the EEG improved in 3. The percentage of patients reporting an improvement in seizure frequency was higher in patients not taking CBZ, OXB, PHEN (improvement in seizure frequency in 92.3% of this subgroup), confirming literature data.
Side effects were reported in eight patients during the first 3 weeks, persisting after 6 months in 7 patients (fig.3). The most frequent side effects were somnolence, vertigo and ataxia. Only one patient withdrew perampanel due to adverse effect (ataxia), while 6 stopped taking the medication due to lack of efficacy.

Conclusions:
These data showed that once-daily perampanel is effective and well-tolerated in our prospective patient population as add-on therapy. This is meaningful especially considering the severe refractoriness of these patients and high number of AEDs previously used by these patients. A longer follow up will help understanding the long-term efficacy of this AED.

Efficacy endpoints	*% of patients*
Improvement in seizure frequency	76,50%
Responder rate	58,80%
Reduction of concomitant AEDs	23,91%
EEG improvement	6,52%
Withdrawal due to adverse reactions	2,17%

Fig.1: Summary of results of the main efficacy endpoints

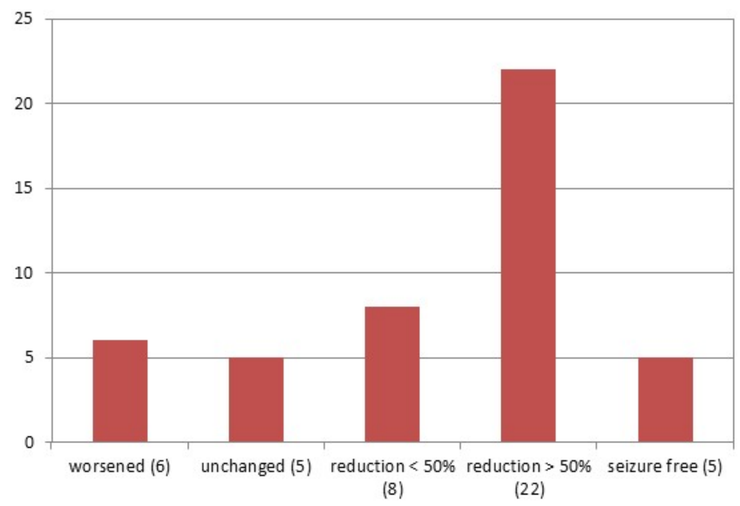

Fig.2: Effect on the mean number of seizure/month (number of patients)

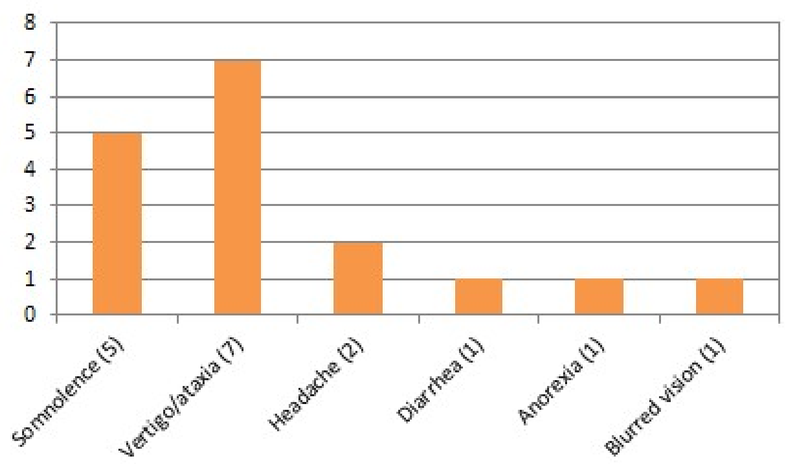

Fig.3: Side effects (total number)

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