CORRESPONDENCE

The Treatment of Women With Epilepsy

by Dr. med. Sabine Weil, Dr. med. Charlotte Deppe, Prof. Dr. med. Soheyl Noachtar in volume 45/2010

Step Down Treatment With Antiepileptic Drugs

The review article by Weil et al (1) is extremely useful because many pregnant women with epilepsy are still subject to restrictive treatment.

One aspect could even be articulated in a more apodictic fashion: under the aspect of “breast feeding,” the authors write “Mothers with epilepsy are not currently advised to desist from breastfeeding.” In my opinion, it should say: “Mothers with epilepsy should be urgently advised to breast feed!”

My reasoning: The fetus is in contact with all epileptic drugs that the mother is (hopefully meticulously) taking, via the umbilical vein and amniotic fluid. The mean concentrations that are measured in the umbilical serum at the time of the birth are correspondingly high—relative to the concentration in the maternal serum—for example, carbamazepine 66%, ethosuximide 104%, phenobarbital 96%, phenytoin 128%, primidone 100%, and valproate 133% (2).

Postnatally, the administration of antiepileptic drugs would be interrupted, with the subsequent risk of withdrawal symptoms, such as can develop for many centrally effective substances. By means of breast feeding and slow weaning, however, the baby’s intake of antiepileptic drugs is stepped down slowly over several weeks/months, since all antiepileptic drugs pass into breast milk: For example, carbamazepine 50%, ethosuximide 92%, phenobarbital 37%, phenytoin 50%, primidone 115%, and valproate 4% (relative to the mother’s serum concentration). The treatment administered to the neonates is thus stepped down, which is desirable.

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Conflict of interest statement

The author declares that no conflict of interest exists according to the guidelines of the International Committee of Medical Journal Editors.

In Reply:

We thank Professor Meyer for his interest in our review article (1). We pointed out that it is not justifiable to advise women with epilepsy not to breast feed, but unfortunately this happens often. Professor Meyer’s advice, “Mothers with epilepsy should be urgently advised to breast feed!”, however, currently lacks evidence from an epileptological perspective.

As mentioned, antiepileptic drugs pass into breast milk in more or less pronounced concentrations. The worry about drug withdrawal in neonates who are not breast fed may be justified for the benzodiazepines and phenobarbital/primidone, even though the baby’s serum concentrations, for example of phenobarbital, drop only slowly in non-breastfed infants because of the drugs’ long half life periods and the impaired hepatic function (on day 7 postpartum the concentrations will still be therapeutic) (2). The slow elimination may be sufficient to prevent withdrawal symptoms. Phenobarbital and primidone nowadays are third line drugs in epilepsy treatment. For the other antiepileptic drugs, no withdrawal symptoms are to be expected.

As long as studies with high enough case numbers and satisfactory study design are lacking, no more concrete recommendations can be made from an epileptological and perinatal perspective. Women who do not wish to breast feed do not have to be persuaded to do so from an epileptologist’s perspective. Other important aspects, such as immunological considerations or the development of the relationship between mother and baby are not considered here. The decision to breast feed lies entirely with the mothers; epileptological aspects are of secondary importance.

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Dr Weil has received honoraria for speaking from UCB. Dr Deppe and Professor Noachtar declare that no conflict of interest exists according to the guidelines of the International Committee of Medical Journal Editors.