Brief Communication

How often do doctors discuss drug withdrawal with their seizure-free patients with epilepsy?

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Abstract

Among patients with epilepsy, almost 70% become seizure-free with the current antiseizure drugs (ASDs) within 20 years following seizure onset. Of those who have been seizure-free for many years, around 70% remain seizure-free after withdrawal of ASDs.

The purpose of this study was to determine the extent to which seizure-free patients with epilepsy in Norway discuss drug discontinuation with their physician.

An online questionnaire was used; among the respondents were 186 adult patients who had been seizure-free for at least five years and were still using ASDs. Of these, 60 patients (32%) reported that they had discussed the question of drug withdrawal with their treating physician. Those patients who reported being involved in treatment decisions were more likely to have discussed ASD withdrawal.

In conclusion, it is our opinion that discontinuation of drug treatment in patients with long-term seizure freedom is discussed far too seldom and that many patients may be living with an unnecessary drug burden.

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1. Introduction

About 65 million people suffer from epilepsy worldwide [1]. In Western countries, about 25 antiseizure drugs (ASDs) are currently available on the market, and following treatment with these drugs, about 70% of the patient population achieves long-term seizure freedom [2]. Almost 90% of patients using ASDs experience adverse effects [3], and reducing these side effects can contribute to a better quality of life [4].

When a patient with epilepsy has been seizure-free for a certain period of time, discontinuation of ASD therapy may be considered. Two randomized controlled trials have been conducted to explore whether ASD withdrawal is justifiable in patients who have been seizure-free for at least two years [5,6]. These studies showed that the risk of seizure recurrence in the withdrawal group was about twice that of those who continued their drug treatment; 40% vs. 20% [5,6] and 15% vs. 7% [5,6]. In a meta-analysis of withdrawal studies (n = 45) including 7082 patients, Lamberink and coworkers found that the cumulative relapse rate either 1, 2, or 3–4 years after discontinuation was 22%, 28%, and 34%, respectively [7].

In a later systematic review and individual participant data meta-analysis by the same group, an individualized prediction model of seizure recurrence and long-term outcome was developed [5,6]. An online tool to assess risk and prognosis associated with ASD withdrawal in individual patients was developed and is available at http://epilepsypredictiontools.info/aedwithdrawal [8].

However, the extent to which treating physicians discuss the possibility of withdrawing ASD treatment with their patients has received sparse attention in the epilepsy community. Thus, the purpose of this study was to explore whether seizure-free patients with epilepsy in Norway have discussed ASD withdrawal with their doctor.

2. Material and methods

2.1. Online questionnaire

This was a collaborative study between the National Centre for Epilepsy in Norway and the Norwegian Epilepsy Association (NEA). A questionnaire appeared as a pop-up on NEA’s homepage between April 1st 2017 and September 5th 2017. Visitors to the page were asked questions about various aspects of epilepsy, including background information, current treatment, epilepsy etiology, epilepsy severity, medical follow-up, and whether they had discussed withdrawal of ASDs with their doctor.

Approximately 100,000 persons visit NEA’s homepage every year, and the page is regarded as an important source of information about
Discussion

by a specialist were not significantly associated. Other variables like known epilepsy etiology or follow-up, 64% of cases were in five-year terminal remission, of which 74% were off medication [9]. The best time for drug withdrawal has not been established and should be tailored to the individual patient. Each patient for whom ASD withdrawal is under consideration should undergo an appropriate risk assessment; online tools for this purpose are available. As in medicine in general, a holistic approach should be used, and it is important that patients are warned against abrupt self-withdrawal [10,11].

We are not aware of any studies that address the extent to which ASD withdrawal is discussed with patients. However, the impact of counseling about the risk of seizure relapse was investigated in one study, and it was found that the patients were more reluctant to consider drug withdrawal after the counseling [12]. In our study, we found that the likelihood of patients having discussed ASD withdrawal with their doctor more than doubled if the patients felt they had been involved in treatment decisions; i.e., shared decision-making. This probably reflects an open and trust-based doctor–patient relationship.

There are some limitations to our study. Although a web-based questionnaire was used with the intention of obtaining data from a representative sample of Norwegian patients with epilepsy, the percentage of respondents who had been seizure-free during the previous year (41%) was lower than expected from a representative sample of Norwegian patients with epilepsy. This may indicate a bias towards patients with more severe epilepsy responding to the questionnaire.

Our dataset was based solely on the information provided by the respondents. Thus, we were not able to confirm whether those patients who reported being seizure-free for five years actually were so. In addition, we could not determine whether patients actually had or had not been discussed withdrawal of ASD with their physicians, as they reported. Given that memory problems occur frequently in patients with epilepsy, errors could have occurred here that could have resulted in either underreporting or overreporting of discussions about ASD withdrawal between patients and their doctors.

Furthermore, we had no information about the intellectual capacity of the respondents although we assume at least a basic intellectual capacity as all respondents needed to access, open, and navigate the survey. Further limitations are the known problems with validity of close-ended questionnaires, such as lack of alternative answers.

| Variable                        | ASD-withdrawal not discussed (N = 126) n (%) | ASD-withdrawal discussed (N = 60) n (%) | P-value |
|---------------------------------|---------------------------------------------|----------------------------------------|---------|
| Male                            | 46 (37.1)                                   | 19 (32.2)                              | 0.62    |
| Age - 55 years                  | 91 (74.0)                                   | 45 (76.3)                              | 0.85    |
| GTCS/FBCTS                      | 73 (57.9)                                   | 35 (58.3)                              | 1.00    |
| Drug monotherapy                | 82 (65.1)                                   | 36 (60.0)                              | 0.52    |
| Unknown epilepsy etiology       | 54 (41.2)                                   | 33 (55.9)                              | 0.12    |
| Living alone in treatment       | 37 (30.3)                                   | 17 (29.3)                              | 1.00    |
| decisions                       | 68 (53.3)                                   | 43 (71.7)                              | 0.04    |
| Follow-up by specialist         | 67 (53.6)                                   | 39 (65.0)                              | 0.15    |

Answering: *124,123,126,125,122,59,60,58.
FBCTS: focal to bilateral tonic-clonic seizure.
GTCS: generalized tonic-clonic seizure.
In addition, we have no information on the results of electroencephalogram (EEG) examinations of the respondents. Such results may influence a doctor’s decision on whether it is appropriate to discuss drug withdrawal.

5. Conclusion

Based on these survey results, discussion with doctors of drug withdrawal in adult patients who have been seizure-free for many years should occur more often in our opinion. The subject should be addressed regularly, and the decision on whether ASD withdrawal should be tried should be based on a risk–benefit analysis, with the ultimate decision taken by the patients themselves, after a thorough and supported discussion of all aspects.

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Declaration of competing interest

Oliver Henning has received speaker’s honoraria from Eisai, UCB, and Livanova. Morten I Lossius has been giving talks and participated in expert panels for Eisai and UCB. Tone E.M. Medalen and Karl Otto Nakken have no conflict of interest to disclose. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. We confirm that we have read the journal’s position on issues involved in ethical publication and affirm that this report is consistent with those guidelines.

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