

## ILLNESSES AND ACCIDENTS IN EPILEPSY PATIENTS

### Morbidity and Accidents in Patients with Epilepsy: Results of a European Cohort Study

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**PURPOSE:** To assess the risk of illnesses and accidents in patients with epilepsy and to evaluate the proportion of those risks attributable to epilepsy.

**METHODS:** Nine hundred fifty-one referral patients with idiopathic, cryptogenic, or remote symptomatic epilepsy and 909 matched controls (relatives or friends) were followed up prospectively for 1 to 2 years in eight European countries (Italy, Germany, Holland, England, Portugal, Russia, Estonia, and Slovenia). Each patient and control received a diary to keep notes regarding any illness or accident. Patients with epilepsy specifically recorded relations with seizures.

**RESULTS:** Six hundred forty-four patients recorded 2,491 illnesses compared with 1,665 illnesses in 508 controls. The cumulative probability of illness in patients was 49% by 12 months and 86% by 24 months (controls, 39% and 75%;  $P < 0.0001$ ). One hundred ninety-nine patients and 124 controls had 270 and 140 accidents, respectively. The cumulative probability of accident in the cases was 17% and 27% by 12 and 24 months (controls, 12% and 17%;  $P < 0.0001$ ). The chance of two or more illnesses or accidents was modestly but significantly greater in the patients. Illnesses and accidents were mostly trivial. Thirty percent of illnesses and 24% of accidents were seizure related. When illnesses and accidents related to seizures were excluded, the chance of illnesses and accidents was fairly similar in the two groups.

**CONCLUSIONS:** Patients with idiopathic, cryptogenic, or remote symptomatic epilepsy have a moderately higher risk of illnesses and accidents than do the general population. With few exceptions, the events are trivial. When seizure-related events are excluded, patients with epilepsy are not at any significantly higher risk of illnesses and accidents.

### COMMENTARY

Epidemiologic studies of epilepsy have done much to define the frequency of seizures and seizure disorders in the population and to provide a far more accurate understanding of prognosis than was available based on patients cared for in tertiary centers. Although the majority of individuals with epilepsy do very well with respect to seizure control, they still face many challenges in everyday life. This is particularly the case for obtaining insurance: automobile, life, and other. This is largely owing to the belief that people with epilepsy are at increased risk for accidents and illnesses directly or indirectly related to the occurrence of seizures or for other reasons as a result of their epilepsy.

The remarkable study by Drs. Beghi and Cornaggia and a large team of colleagues provides valuable information about the actual existence and magnitude of these potential risks. In their multinational prospective matched cohort study of 951 people with epilepsy and 909 controls (without epilepsy), they find that there is very little increase in risk for non-seizure-related accidents in “patients” versus controls, and that even if one considers seizure-related accidents, the relative and absolute increases in risk are modest. Most of the events are not serious. The same was true of illnesses.

Although this was not, technically speaking, a population-based study, one would be hard-pressed to argue that any of the methods used underestimated any of the risks associated with epilepsy. Thus readers should be reasonably confident that the risks are no higher than those that were found.

This carefully conceived and well-conducted epidemiologic study is a welcome addition to literature on risks and consequences of epilepsy and provides critical information that may help relieve many of the obstacles that individuals with epilepsy typically face when trying to obtain various forms of insurance coverage.

*by Anne T. Berg, Ph.D.*