DO SLEEP DEPRIVATION AND STRESS BRING ON SEIZURES? NO

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Some patients with epilepsy hold the belief that their seizures are brought on by sleep deprivation and or stress.

Studies which showed that sleep deprivation increased the detection rate of interictal epileptiform discharges (IEDs) on the EEG did not demonstrate an increase in the recording of seizures on sleep-deprived EEGs. A study comparing activation of IEDs on a sleep EEG with and without sleep deprivation found no difference, meaning that the recording of sleep, and not sleep deprivation, was responsible for the increased yield in detecting IEDs.

In a study of 84 refractory partial epilepsy patients undergoing inpatient monitoring, patients were assigned to either sleep deprivation every other night or to normal sleep. Seizure counts did not differ significantly between the sleep-deprived and normal sleep groups

A retrospective study examined seizure frequency during the 1991 Gulf War, when Israelis were under stress from the threat of Scud missile attacks; increased seizure frequency occurred in only 8% of 100 patients with epilepsy, leading to the conclusion that epilepsy control was only weakly affected by an acute external emotional stress factor.

In a prospective study of 46 subjects with epilepsy stressful events increased the likelihood of seizures in 5 and decreased the likelihood of seizures in 2 subjects.

Another study investigated the prevalence and nature of self-perceived seizure precipitants in 200 patients with epilepsy, and found a clear relation to psychologic factors, including higher anxiety levels, and also to "health locus of control". This was found for both sleep deprivation and stress as seizure precipitants.

A substantial part of the burden of epilepsy stems from the fact that seizures are unpredictable, and occur without warning when least expected. Patients desperately try to find a cause for every individual seizure, seeking false reassurance that seizures may be prevented if only they avoid certain triggers, especially sleep deprivation and stress. Unfortunately, in most cases this does not hold true.