



April 2005

Volume 5 Issue 4



hotline

Study Suggests Solving Sleep

Problems Helps Children With Epilepsy

Problems with their sleeping habits may explain why children with epilepsy are often hyperactive, according to a study undertaken at the University of Florida's McKnight Brain Institute.

Epilepsy has long been thought to cause excitability and contrariness in children, the researchers said, writing in the journal *Epilepsy & Behavior*. However, they now think that the real reason some of these children cannot sit still or pay attention is because of a lack of sleep.

The study monitored the brain and muscular activity of 30 children with epilepsy (ages 7 - 14) during single overnight stays. None of the children had seizures, but some awoke hundreds of times because of breathing problems.

73% of the children studied met clinical criteria for inattention or hyperactivity. Of these 22 children, each had a sleep disorder, 14 had problems paying attention during the day and 8 had hyperactive symptoms, supporting the idea that a poor night's sleep is associated with children's daytime attention problems.

In all, 80% of the children breathed shallowly or had breathing disruptions caused by apneas (a temporary stopping of breathing), which usually happens when the soft tissue in the rear of the throat relaxes during sleep and blocks a person's airway.

As the breathing disruptions increased in duration, the children spent less time in rapid eye movement (REM) sleep, a period in the sleep cycle when brain activity is highest and people dream intensely. The children in the study spent 17% of total sleep time in the REM stage, whilst the normal for young adults is 25%.

When they treated kids with sleep disturbances, not only did their epilepsy get better, their daytime behavior, concentration and capacity to learn increased. Many kids with epilepsy aren't being adequately assessed for underlying sleep disorders. We can significantly have an impact over their cognition, learning and maybe even improve their epilepsy by improving their sleep.

Removing the sleep problem does seem to improve the behavior problem significantly, because it changes the child's level of alertness, commonly, adults are just not as awake if they have a sleep disorder. But children who haven't taken their nap are wound up instead. In treating their sleep disorder, researchers think they can enable their brain to have some control over unwanted behaviors.

(continued next column)



Researchers found no correlation between seizure frequency and behavioral problems. Epilepsy alone did not appear to predispose the children to behavioral problems.

Research with different groups of children is now under way to determine whether treatment of sleep disorders will reduce seizure frequency and severity, and to more fully understand the effects of sleep disorders on children's behavior and cognitive abilities. —*Epilepsy Action*

Adult Epilepsy Support Group
Meets Second Tuesday of Month at 6:30 PM
2919 W. 2nd Street, Wichita (more info: 943-2453)

MAY 10: Stress Management
JUNE 7: Stress Management (Unit II)

Most Reported Seizure Triggers

A National Institute of Neurological Disorders and Stroke (NINDS) study surveying over 1600 participants focused on precipitating factors of seizures. Individuals with seizure disorders were given a closed-ended questionnaire in which a list of 37 seizure triggers was provided. The study's participants were twins chosen from three countries—U.S., Denmark and Norway. The study population ranked these as their most frequent seizure precipitating factors : (note: United States Ranking in parenthesis) (T indicates Tie)

1. Emotional Stress (US: 1)
2. Sleep Deprivation (US: 4)
3. Tiredness (US: 2)
4. Alcohol (US: 7)
5. Fever (US: 3)
6. Flickering Light (US: 8T)
7. Noncompliance—Missed Meds (US: 5)
8. Menstruation (US: 10T)
9. Physical Exercise (US: 8T)
10. Heath (US: 8T)

Patients with generalized seizures seemed to be more sensitive to sleep deprivation and flickering light than those with partial seizures. Generalized seizures start in both hemispheres of the brain, whereas a partial seizure is localized to one specific hemisphere.

Knowledge of seizure precipitants has practical implications. Used not only in patient treatment and counseling, it is especially instrumental in diagnosis in helping an epileptologist read electrical discharges in EEG recordings. —*Epilepsy & Behavior* 6 (2005)

Epilepsy & The Elderly

Seizures Are A Growing Challenge For Those 65 and Over

Epilepsy in the elderly is different than in younger individuals. Diagnosis can be more challenging given the high frequency of other disorders (e.g., dementia, brain tumors, stroke, Alzheimer's Disease).

Non-convulsive Complex seizures often go unnoticed, or are considered a symptom of other "aging ailments." Indeed epilepsy is often unrecognized and undiagnosed in this population.

The elderly are the fastest growing segment of the population and the prevalence of epilepsy in the elderly is high, approximately double that of younger adults. More than one-third of active epilepsy in the U.S. occurs in individuals over age 65.

Nearly 1.5 million American elderly live in nursing homes. It seems that the greater infirmity, the greater the chance of epilepsy or anti-epileptic drug (AED) use: ~10% of nursing home residents take AEDs.

Quality of life remains an important issue for the elderly. Many elderly persons are vital elements of their world. They volunteer, work, are woven into the fabric of their family, and enjoy active vacations and the arts. This is a far cry from the stereotypes that plague some elderly as frail, inactive, incipient death.

Compliance is a challenge due to memory impairment, and complex multi-drug regimens and cost. The elderly are especially vulnerable to the adverse affects of medications. Their central nervous system and body may be less forgiving and more sensitive. Reduced metabolism, other disorders and medication interactions are all treatment problems that can rival those of diagnosis.

Seniors, Seizures, and Stereotypes

- An in-service presentation on epilepsy quality of life issues for senior citizens for **senior centers, residential & care facilities, agencies, and day programs.**

MORE INFO or TO SCHEDULE a presentation: 943-2453

★★ It is more critical, now than ever, that you know how to identify a seizure & aid a person having a seizure. ★★

The ARC of Sedgwick County
2919 W. 2nd St
Wichita, KS 67203

Phone: 316-943-2453

Fax: 316-943-3292

E-mail: ERC@arc-sedgwickcounty.org

Web: www.arc-sedgwickcounty.org/erc

FDA Issues Warning Over Trileptal

Drug Use Has Small Risk of Skin Condition Side Effect

The US Food and Drug Administration has issued a warning to health professionals and consumers about a newly-discovered possible side effect of the anti-epileptic drug oxcarbazepine (Trileptal).

In a letter to professionals posted on the FDA website from the manufacturer, Novartis, the increased risk of possible serious skin conditions is highlighted. The letter says if a patient develops a skin condition whilst taking the drug, changing their anti-epileptic medication to another drug should be considered.

Novartis warn that people taking Trileptal have between a three- and ten-times higher risk of developing a number of serious skin conditions compared to the general population. The letter, however, does state that the risk to people developing the serious skin conditions reported, Stevens-Johnson syndrome and toxic epidermal necrolysis, is still very small - affecting, it is estimated, around 1 person in every 300,000 per year. —*Epilepsy Action*

United Way Presentation



On Monday, April 18, Colette Conner-Deeds and Kore Liow, MD, were guest presenters at ERC's United Ways of the Plains 2006 Funding Hearing.

ERC is grateful to Dr. Liow and Colette for their support and participation in efforts to benefit the quality of life for all individuals living with seizure disorders.

Dr. Liow is an epileptologist and Director of the Via Christi Comprehensive Epilepsy Center. Colette has been a long-time supporter of ERC and was instrumental in ERC's support group for adults.

We also appreciate long time epilepsy advocate and ERC friend, Bob Hamilton. Bob attended the hearing to show the community's support for ERC's presence in the community.

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