EPILEPSY NEWS

NORTHEAST REGIONAL EPILEPSY GROUP

NEW YORK / NEW JERSEY / CONNECTICUT

The Northeast Regional Epilepsy Group provides comprehensive care to children and adults with epilepsy, using state of the art diagnostic procedures and applying the latest advances in medical and surgical treatment.

May 2008 Volume 5, Issue 2 www.epilepsygroup.com

FROM THE DIRECTOR

Convulsive Seizures frighten all parents of young children who experience them as a result of illness and a sudden rise in their child's temperature: Febrile Seizures. Initial shock leads to frantic calls to the physician and finally to the fear of the unknown. Dr. Zaatreh has outlined the recognition and treatment of these spontaneous events in the hopes that the information here will assist you as you respond to your patients and the fears of their parents and caretakers. You will find this article clear and concise, with direction given to not only to the treatment of these young patients, but also to the understanding of possible future outcomes. I hope you find it a helpful tool for your practice.

Marcelo Lancman, M.D.
Medical Director

FEBRILE SEIZURES

By Megdad Zaatreh, M.D.

Seeing your child apparently lifeless, not responding, tense and convulsing could be an extremely traumatic and terrifying experience. This is a situation frequently encountered by parents of children who experience Febrile Seizures (FS). FS are the most common cause of a convulsive event in a child and is seen in approximately 1 out of 20 children; of which about one third will have more than one event. Fortunately, the majority of children with FS have an excellent prognosis, with minimal or no long-term effects. Accurate evaluation, counseling and parental reassurance are the keystones in managing this condition.

Definitions and Classifications

FS are seizures that occur in early childhood between the ages of 6 months and 5 years, with peak incidences between ages 18 and 22 months. By definition, FS have to occur in the setting of Febrile Illness excluding Central Nervous System Infections. Common Illnesses children frequently experience, such as Upper Respiratory Tract Infections, Otitis Media, and Gastrointestinal Illnesses may cause FS. FS may also occur secondary to fever associated with vaccination such as the Measles-Mumps-Rubella vaccine.

Clinical features during and after a seizure attack are paramount in the classification of the two subtypes of FS: Simple Febrile Seizure (SFS) and Complex Febrile Seizure (CFS). A SFS is a generalized convulsive seizure (with no focal neurologic features) that lasts less than 15 minutes with no recurrence within 24 hours. If any of the above conditions are not met, then it is considered a CFS. Approximately 75% of FS are SFS, with 25% being CFS. Accurate seizure classification is crucial for counseling, evaluating, managing and determining the prognosis of FS.

Workup

A complete history and physical examination are essential in classifying the subtype of FS and aiding with the evaluation. Pinpointing the etiology of the fever is critical in guiding the evaluation and treatment. Strongly consider lumbar puncture in children younger than 12 months. The signs and symptoms of bacterial meningitis may be minimal or absent in this age group. Lumbar puncture should be considered in children aged 12-18 months. The clinical signs and symptoms of bacterial meningitis might be subtle in this age group. In children older than 18 months, the decision to perform lumbar puncture rests on the clinical suspicion of meningitis.

Neuroimaging studies are reserved by some to be performed only in patients with CFS or in patients with prior history of neurologic disorders such as developmental delay or neurocutaneous disorders. Patients with recurrent SFS probably require either a CT scan or, preferably a brain MRI. An electroencephalography (EEG) could sometimes be of benefit in differentiating FS from epileptic seizures associated with fever.

Treatment

Parents and caregivers should stay calm and carefully observe the child. To prevent accidental injury, the child should be placed on a protected surface such as the floor or ground and any tight clothing should be loosened. The child should not be held or restrained during a convulsion. To prevent choking, the child should be placed on his or her side and no attempts should be made to try to open the mouth. The parent should never place anything in the child's mouth during a convulsion. Objects placed in the mouth can be broken and obstruct the child's airway. In patients with recurrent and/or prolonged seizures, parents and caregivers can be taught to administer rectal diazepam gel.

Once the seizure has ended, the child should be taken to his or her doctor to check for the source of the fever.

For seizure prevention, it is a common approach to prevent fevers with judicious use of antipyretics. This approach, however, is not supported by literature and clinical data. In fact, the International League Against Epilepsy does not recommend the use of antipyretics except for patient comfort. The practice of giving anticonvulsants such as Phenobarbital to patients with recurrent FS is proven to be ineffective and probably more harmful that helpful. The use of anticonvulsants in FS should be limited to rather rare and unusual circumstances.

Prognosis

In evaluating the prognosis of FS we try to answer three key questions:

- What is the risk for recurrent FS?
- Is there any long-term neurologic dysfunction or brain damage associated with FS?
- What is the risk for subsequent development of epilepsy?

With regard to the recurrence of FS, approximately 35% are likely to have another FS. The risk of recurrence is higher with CFS, family history of FS, FS before the age of 1 year and FS with relatively low temperature. These recurrence rates are not altered by the use of anticonvulsants. Multiple studies show that the long-term prognosis for normal neurologic function is excellent and that febrile seizures do not cause neurologic sequelae or brain damage in children who have normal development and are otherwise healthy.

The lifetime rate of epilepsy in children with FS is slightly above that of the general population. The risk of epilepsy is approximately 2% in patients with SFS and may reach from 5% to 10% in patients with multiple features of CFS.

Taking anticonvulsants after FS does not alter the risk of epilepsy. Many patients with temporal lobe epilepsy have a history of FS. However, this could be due to the fact that the FS are the first sign that the child is predisposed to having seizures, and not that FS cause epilepsy.

In summary, FS are the most common cause of convulsive events in children. They should be classified into Simple or Complex, and be evaluated and managed as such. The majority of patients with FS have no long-term effects from their seizures even if they are recurrent. Seizure first aid, finding the source of the fever, and family reassurances are usually all that is needed in managing these patients.

2008 CALENDAR OF EVENTS

NORTHEAST REGIONAL EPILEPSY GROUP

FACULTY

EPILEPTOLOGISTS
Marcelo E. Lancman, M.D.
Christos C. Lambrakis, M.D.
Salah Mesad, M.D.
Olgica Laban, M.D.
Jeffrey Politsky, M.D., FRCP©
Megdad Zaatreh, M.D.
Georges A. Ghacibeh, M.D.

NEUROPSYCHOLOGISTS
(212) 661-7460
Lorna Myers, Ph.D
Gonzalo Vazquez-Casals, Ph.D
Charles Zaroff, Ph.D
Keren Isaacs Lebeau, Ph.D
Gwinne Wyatt Porter, Ph.D
Robert W. Trobliger, Ph.D
Richard H. Grayson, Ph.D

NURSES
Lillian D. Cassarello, MSN APRN
Sabrina Cristofaro, RN (Hackensack Hospital)
Shannon Brophy, NP (Hackensack Hospital)
Susan Seeger, NP (Overlook Hospital)
Tannia Cupertino, NP

EDUCATION DEPARTMENT
Ann Marie Bezuyen, Director
Tina Conneely, Director of Employment Advocacy
Dawn Brace, Case Manager

TECHNICAL DIRECTOR
Teejan Wojohk

OFFICE PHONE NUMBERS

NEW YORK		NEW JERSEY	
White Plains	914.428.9213	Hackensack	201.343.6676
Manhattan	212.661.7486	Summit	908.522.4990
Middletown	845.695.6884	Somerset	732.246.7722
Fishkill	845.897.0011		
Staten Island	718.818.1515		
Bronx	718.655.6595		

PHYSICIAN PROGRAM NEW YORK
Educational Dinner: "Advances in Epilepsy" • Monday, May 29th - 6:00pm • La Panetiere; 530 Milton Road; Rye, New York 10580

Symposium: "Advancement in the Management of Epilepsy" • Saturday, October 25th • Rye Town Hilton; 699 Westchester Ave; Rye Brook, NY 10573

COMMUNITY EDUCATION PROGRAM
"EPILEPSY THROUGH THE LIFESPAN"
Saturday, June 21st - 9:00am • Richmond University Medical Center; 355 Bard Ave, Staten Island, NY 10310

Saturday, September 20th - 9:00am • St. Peter's Hospital; 254 Easton Ave; New Brunswick, NJ 08901

Saturday, October 4th - 9:00am • White Plains Crown Plaza; 66 Hale Ave; White Plains, NY 10601

Saturday, October 18th - 9:00am • Overlook Hospital - Wallace Auditorium; 99 Beauvoir Ave; Summit, NJ 07902

Saturday, November 1st - 9:00 am • Our Lady of Mercy Medical Center; 600 E 233rd St.; Bronx, NY 10466

"LA EPILEPSIA EN DIFERENTES MOMENTOS DE LA VIDA"
Saturday, November 8th - 9:00am • (Epilepsy through the lifespan) • The NYC Seminar & Conference Center; 71 W 23rd St; New York, NY 10010

ADULTS WITH EPILEPSY AND THEIR CARETAKERS
1st Thurs. of the Month - 6:30 pm • White Plains Hospital Medical Library; Davis Ave & E Post Rd; White Plains, NY 10601

2nd Tues. of the Month - 6:30 pm • Wallkill Medical Arts Building; 390 Crystal Run Rd - Ste 101; Middletown, NY 10941

2nd Wed. of the Month - 3:00pm • Medical Pavilion; 4256-1 Bronx Blvd; Bronx, NY 10466 (call (646) 457-2866 to register or for info.)

2nd Thurs. of the Month - 6:30 pm • Overlook Hospital; Atlantic Neuroscience Inst. Conf. Rm.; 99 Beauvoir Ave.; Summit, NJ 07902

3rd Tues. of the Month - 6:30pm • St. Luke's Cornwall Hospital - Newburgh Campus; Conf. Rm. C (3rd fl); 70 Dubois St, Newburgh, NY 12550

PARENTS OF CHILDREN WITH EPILEPSY
1st Tues. of the Month - 6:30pm • Northeast Regional Epilepsy Group; 21 Old Main St - Ste 101; Fishkill, NY 12524

4th Tues. of the Month - 7:00pm • Wallkill Medical Arts Building; 390 Crystal Run Rd - Ste 101; Middletown, NY 10941

TEEN GROUP
4th Tues. of the Month - 7:00pm • Wallkill Medical Arts Building; 390 Crystal Run Rd - Ste 101; Middletown, NY 10941

For more information or to register for a group educational program, call Ann Marie at (845) 695-6885.

PLEASE CHECK OUR WEBSITE FOR UPCOMING EDUCATIONAL EVENTS. WWW.EPILEPSYGROUP.COM

Northeast Regional Epilepsy Group
Wallkill Medical Arts Building
390 Crystal Run Road, Suite 101
Middletown, NY 10941

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