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Dr. David Tayloe Jr. of Goldsboro, N.C., opened one clinic in a former hardware store and fire station in the town of La Grange.

Satellite Clinics Help Practice Soar

BY JOHN R. BELL
Associate Editor

When Dr. David Tayloe Jr., a pediatrician in Goldsboro, N.C., and his partners found they had more patients than they could handle, they didn't stop taking new ones; they opened a satellite clinic in a nearby town. And another. And then another. Now, with three satellite clinics, the practice is booming, and the community is getting better pediatric care, he told PEDIATRIC NEWS.

"The main office just could not be expanded any more. ... Some winter days, we run 300 to 500 patients through." The satellites have enabled the practice to see as many as 200 additional patients in a day, he added. "That would've

ing 12 pediatricians, seven nurse-practitioners, a psychologist, two Medicaid case managers, a lactation consultant, and others. "Everybody who talks about the business side of satellites says you're going to lose money, because you're duplicating a lot of your overhead, particularly with facilities and equipment." But the investment has meant the practice can see a great deal more patients, he said.

Dr. Tayloe began his practice in 1977. It grew to four physicians and gradually became the sole pediatric practice in a county that now has 115,000 people.

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Weak Child?

Differential diagnosis of weakness can be tricky, a pediatric neurologist says.

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Cystic fibrosis-related diabetes cases require a different treatment approach.

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Bad News Knees

Many athletes with patellofemoral syndrome have a high-riding kneecap.

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AAP Policy Fluoroquinolone To Dire Site

'We wanted to be very s

BY MIRIAM E. TUCKER
Senior Writer

Fluoroquinolone use in children should be restricted to situations in which there is no safe and effective alternative either for treating an infection caused by multidrug-resistant bacteria or in which parenteral therapy is not feasible.

The recommendations, released in a new policy statement from the American Academy of Pediatrics' Committee on Infectious Disease (COID), are in response both to concerns about increasing rates of bacterial resistance and to the potential association of fluoroquinolones with adverse musculoskeletal events

ADHD Drugs May Subsyndromal

BY HEIDI SPLETE
Senior Writer

Children who are impaired from subsyndromal levels of symptoms of attention-deficit hyperactivity disorder may benefit from medication.

The finding comes from a population-based study conducted between 1996 and 2001 of 1,610

NEW EDITORIAL CONTENT

Special Needs:

Health Policy:

Breathing Ills Linked to Myocarditis

BY ROBERT FINN
San Francisco Bureau

SAN FRANCISCO — Acute myocarditis and dilated cardiomyopathy should be in the differential diagnosis of any child who presents with difficulty breathing or respiratory symptoms, according to a poster presentation by Dr. Yamini Durani at the annual meeting of the Pediatric Academic Societies.

In a retrospective study of 49 children eventually diagnosed with myocarditis or dilated cardiomyopathy (DCM), Dr. Durani, of Thomas Jefferson University, Philadelphia, and colleagues determined that only 20% were suspected of having one of these disorders at the first visit. Eighty percent of the children had one or two physician visits in the 10 days prior to the visit in which myocarditis or DCM was suspected.

The most common initial diagnoses by physicians were respiratory illness (29%) and cardiac disease (29%), followed by viral illness (8%) and other illnesses (33%). The most common primary complaints were difficulty breathing (69%), vomiting (43%), upper respiratory infection (43%), fever (37%), poor feeding (35%), and lethargy (33%).

The investigators acknowledged that respiratory symptoms are extremely common in children, and they don't recommend a cardiac work-up for every child who walks into the office with a cough. They do suggest that physicians keep myocarditis and dilated cardiomyopathy in the differential diagnosis of these children, and that certain subtleties such as hepatomegaly on physical exam or cardiomegaly on chest x-ray may help distinguish these diagnoses from more common respiratory and viral illnesses.

Tachypnea was the most common finding on physical exam, seen in 59% of the patients. Other abnormal signs included hepatomegaly (47%), respiratory distress (43%), and abnormal lung exams (29%).

Based on anecdotal reports, many physicians believe that resting tachycardia is a common finding in patients with myocarditis, Dr. Durani wrote. But in this study, 53% of the patients had a normal heart rate.

Symptoms were evident for an average of 5.8 days before the proper diagnosis was finally made. This delay is critical, wrote the investigators, because with ongoing viral and cytokine injury to monocytes, acute myocarditis may well progress to dilated cardiomyopathy. Without a high index of suspicion, the diagnosis may become evident only when a patient begins a fulminant course and develops heart failure. The meeting was sponsored by the American Pediatric Society, Society for Pediatric Research, Ambulatory Pediatric Association, and American Academy of Pediatrics. ■

Tips to Determine Why a Child Is Weak

BY DAMIAN McNAMARA
Miami Bureau

AMELIA ISLAND, FLA. — Differential diagnosis of the weak child can be tricky. Rule out mimic conditions, order diagnostic tests as warranted, and perform an age-appropriate formal assessment, Dr. David Hammond suggested at a meeting on pediatrics for the primary care physician, sponsored by Nemours.

"Do not be fooled by the chief complaint. The patient could come in for delayed motor milestones, reports of frequent falling, or difficulty in climbing or descending stairs," said Dr. Hammond, a pediatric neurologist at Nemours Children's Clinic, Jacksonville, Fla.

Be alert to weakness, but do not be fooled by mimics, Dr. Hammond said. For example, limb pain can cause a child to walk with an antalgic gait. The pain can stem from trauma, fracture, inflammation, or infection. Back pain from diskitis is another mimic for weakness. An MRI scan can rule out diskitis, he said.

First, determine if a lesion causing weakness is located in the upper or lower motor neuron system, he said. This will guide the diagnostic approach.

Order an MRI to localize a suspected upper motor neuron lesion, Dr. Hammond suggested. The upper motor neuron system extends from the cortex to the anterior horn cell synapse.

To test muscle tone, hold the child under each arm and suspend him or her vertically. If the legs "scissor," it indicates decreased tone. Perform passive flexion and extension of the child's extremities to detect spasticity. "You may see this in a child with cerebral palsy," Dr. Hammond said.

Abnormal deep tendon reflexes, crossed adductors, and ankle clonus are other signs of upper motor neuron lesions. In addition, look for the "plantar response," Dr. Hammond suggested—a child who extends his or her great toe when the other toes fan.

Traditional approaches to diagnose lower motor neuron disorders include creatine kinase (CK) serum quantitation, nerve conduction study electromyogram, and biopsy. "If you have someone with weakness, get a CK [test]. CK is an intracellular muscle enzyme—if it leaks out, it will be elevated." He added, "This is a very useful screening test you all should do."

A nerve conduction test can localize a lesion in the motor unit; this can aid diagnosis of motor neuropathy, demyelinating neuropathy, axonopathy, and botulism-related [lesions]. A sural nerve biopsy can distinguish inflammatory and genetic neuropathies.

"Genetic testing is the new, second approach," Dr. Hammond said. An abnormal DNA test result can indicate spinal muscular atrophy, for example. Also, Duchenne's dystrophy is detected with dystrophin DNA testing.

Dr. Hammond cited the case of a 4-month-old girl with poor head control and delayed milestones. The parents reported she was "floppy" since birth. Her history included a bout of pneumonia and neonatal feeding difficulties. "She presented awake, alert, and smiling. She moved her

fingers and feet but had severely limited proximal movement." She had a normal sensory examination, except for hypotonia and some absent reflexes. DNA testing revealed spinal muscular atrophy, an autosomal recessive disorder.

Formal assessment for weakness in the pediatric patient varies according to age. For neonates and infants up to 9 months, developmental milestones are important measures of tone and strength, Dr. Hammond said. For example, at 3 months, a baby should be able to, with assistance, support his or her weight on legs and forearms.

By 6 months, the baby should sit independently. Hold the infant up by the shoulders to test neck and truncal tone. Tone is impaired if the baby slips down instead of holding himself up, Dr. Hammond said. Another test of tone is horizontal suspension: Hold the baby face down by placing a hand under the thorax; if her head or buttocks droop on either side, tone is impaired.

Another tip is to look for an inverted V shape to the baby's lips, Dr. Hammond said. This indicator of lower facial strength is a "subtle sign you can pick up by observation in a 6 month old."

If a child is 9 months old, assess whether or not he or she can pull to stand, Dr. Hammond said. Other milestones in older infants and children include cruising by 9 months, walking independently by 15 months, and running well by 2 years of age.

In this age group, "simple observation is very helpful; watch them while they play," Dr. Hammond said. "Do they stretch their hands overhead to take toys off a table or squat to pick up toys off the floor?"

Gower's maneuver is a useful measure of proximal lower extremity strength in any ambulatory patient, Dr. Hammond said. Watch when they rise from the floor. "Do they come up butt first or head first? Do they lean on their knees to pull themselves up?"

Observe the child's gait while he walks and runs. Waddling indicates proximal lower extremity weakness, Dr. Hammond said. A steppage gait (in which the foot hangs with the toes pointing down and scraping the floor while walking) is a sign of lower distal weakness. He suggested watching the child as she climbs and descends stairs. Note how many feet she places on each step and whether or not she uses the railing for support.

Observation during play and athletic activity, as well as peer comparisons, is recommended for assessment of weakness in the older child. Manual muscle testing is another option. However, Dr. Hammond prefers to use timed activities to gauge strength, such as running 15 meters or climbing stairs.

"I enjoy doing this more than manual muscle testing, and it is more fun for the kids, too," he said. "It's more sensitive in most cases than manual muscle testing."

Ask the child to hop on either foot, walk on the toes, and walk on the heels, Dr. Hammond suggested. Also, have them step up onto a chair without using their hands. "If you can do that, it is unlikely you have lower extremity weakness." ■

Critical Motor Milestones

The percentage of parents aware of the critical motor milestones and the percentage who would act immediately if their child did not meet them:

■ Percentage aware of milestones
■ Percentage who would act immediately

3 months

- Pushes up on arms
- Holds head up



5% aware
36% would act immediately

6 months

- Sits with support
- Holds head up
- Holds back straight



15% aware
55% would act immediately

9 months

- Sits without support
- Has arms free to reach and grasp



43% aware
78% would act immediately

12 months

- Pulls to stand



58% aware
91% would act immediately

15 months

- Walks independently



51% aware
90% would act immediately

Note: Survey sample of 423 adults reflects a demographic balance of parents with at least one child less than 36 months old. All results are significant at the 55% confidence level.

Source: Pathways Awareness Foundation