Pediatrician's Perspectives: Odd Thoughts On Well-Child Care — Nazarian
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Pediatrician's Perspective
Odd Thoughts on Well-Child Care

It is good to take a hard look at longstanding habits. Well-child care is at the heart of pediatrics; yet, even this most sacred of commitments has been under scrutiny in recent years, and rightly so. But those of us who spend half of our time in well-child visits are frustrated by studies that fail to demonstrate any measurable benefits from our efforts, with the exception of immunization programs. Are researchers really looking at the right parameters? Are there too many variables to allow a truly scientific evaluation of these practices?

At least it is comforting to hear that parental satisfaction and confidence are acknowledged by-products of our work, and intuitively we believe that this effect is good for growing children. But, as the song says, "Is that all there is?" I believe there is a great deal more, and in this reflection I would like to focus on one particular benefit of well-child care that is not often discussed.

The pediatrician cannot properly appreciate the infinite shadings of disease without broad exposure to normality, which includes all the variations that are found in healthy, constantly changing children. A list of anatomic idiosyncrasies alone would go on for pages. How many different shapes do we see in the cages? A modern phrenologist could make a career cataloguing the different contours of normal infant heads. Let us not even get started on toes, moles, and facial expressions. Then, there is physiology. Vibratory murmurs, gaits, breathing patterns, sleep cycles—all have their spectrum within the boundaries of normality. Even more varied is behavior, which can range from withdrawn to near-manic, with everything in between, and still be considered normal. To all of these permutations and combinations, add the constant metamorphosis of the growing and developing child and multiply by countless environmental scenarios. The result is a world of children who possess such a dazzling array of characteristics that even defining normality becomes a struggle.

I contend that one cannot properly diagnose illness and aberration without absorbing the features and details of the normal landscape, and the best way to digest this abundance is to spend considerable time with normal children. Determining that a small infant is lethargic or breathing with labor is possible, at least in the subtle situation, only after observing large numbers of infants going about their usual business. Deciding at midnight whether a toddler with a fever needs an involved and uncomfortable septic workup is possible only after one has logged many hours with tired but healthy toddlers and anxious parents. Similarly, someone unfamiliar with the monosyllabic replies of 15-year-old boys is at a disadvantage when trying to evaluate a teenager's mental status. An inexperienced examiner watching a 1-year-old baby's early, awkward steps may find a disorder that does not exist or miss one that causes a gait not quite like the usual waddle.

Every child who comes in for a routine health maintenance visit adds to the background against which the pediatrician judges not only that child but all the others as well. If there were no other reasons to encourage well-child care—and I believe there are many other justifications—this function alone would make a strong argument in favor of continuing the interaction between healthy children and their physicians.

Having presented the virtues, I must also warn about a subtle but ever-present danger accompanying well-child care.

The general pediatrician sees lots of well children and many youngsters with mild, self-limited disease. He or she also encounters serious acute illness and a modest share of chronic disease although these account for only a small portion of the encounters. Consequently, the practitioner gradually develops the bias that "there probably is no serious disease here," and, most of the time, the reality is that serious disease is not present. But sometimes it is, when you least expect it.

Residents and those just out of training have just the opposite bias. Every newborn who gags has a tracheoesophageal fistula. Every fever in a 2-month-old infant means sepsis or meningitis. A kid with a funny face is sure to have an exotic syndrome, even though his father may look exactly the same. This way of looking at things is also perfectly understandable when one realizes that these young pediatricians spend most of their time with children who do have serious disorders.

The wellness bias that the practitioner develops may also be strength-

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Self-Evaluation Quiz—CME Credit

As an organization accredited for continuing medical education, the American Academy of Pediatrics certifies that completion of the self-evaluation quiz in this issue of Pediatrics in Review meets the criteria for two hours of credit in Category I of the Physician's Recognition Award of the American Medical Association and two hours of PREP credit.

The questions for the self-evaluation quiz are located at the end of each article in this issue. Each question has a SINGLE BEST ANSWER. To obtain credit, record your answers on your quiz reply cards (which you received under separate cover), and return the cards to the Academy. On each card is space to answer the questions in five issues of the journal: CARD 1 for the July through November issues and CARD 2 for the December through April issues. To receive credit you must currently be enrolled in PREP or a subscriber to Pediatrics in Review—and we must receive both cards by June 30, 1990.

Send your cards to: Pediatrics in Review, American Academy of Pediatrics, 141 Northwest Point Blvd, PO Box 927, Elk Grove Village, IL 60009-0927.

The correct answers to the questions in this issue appear on the inside front cover.
SUGGESTED READING


Self-Evaluation Quiz

1. Features of isolated premature adrenarche may include each of the following except:
   A. Pubic hair.
   B. Axillary hair.
   C. Acne.
   D. Accelerated closure of the epiphyses.
   E. Pubertal body odor.

2. Features of precocious puberty due to 21-hydroxylase deficiency include each of the following except:
   A. Viritization in girls.
   B. Acne.
   C. Accelerated linear growth.
   D. Accelerated epiphyseal closure.
   E. Testicular enlargement in boys.

3. Most instances of central precocious puberty are due to:
   A. Unknown causes.
   B. Hypothalamic hamartoma.
   C. Craniopharyngioma.
   D. Trauma.
   E. Acquired hypothyroidism.

4. During the initial evaluation of the child with signs of precocious puberty, the most critical laboratory examination among the following is:
   A. Measurement of follicle-stimulating hormone and luteinizing hormone levels.
   B. Assessment of bone age.
   C. Measurement of 17-hydroxyprogesterone production.
   D. Measurement of dehydroepiandrosterone sulfate levels.
   E. Computed tomographic and magnetic resonance imaging scans of the head.

5. Gonadotropin-releasing hormone analogues are used effectively in the management of precocious puberty of:
   A. Central origin.
   B. Ovarian origin.
   C. Testicular origin.
   D. Adrenal origin.

EDUCATIONAL OBJECTIVE

52. The pediatrician should have appropriate familiarity with the injury risk of bicycle riding and the importance of protecting against head injuries by wearing protective head gear (Recent Advances, 89/90).

Bicycle Safety


In the United States each year, 1300 deaths result from bicycle injuries. Most of these deaths are the result of head injuries. In a careful statistical study, these authors provide compelling evidence that safety helmets for bicyclers "are highly effective in preventing head injury. . . . [They] are particularly important for children since they suffer the majority of serious head injuries from bicycling accidents. . . . Riders who do not wear helmets appear to be at a 6.6-fold greater risk of head injury and an 8.3-fold greater risk of brain injury than riders who do. . . . Head injuries from bicycling are an important problem that grows as cycling continues to increase in popularity. . . . Safety helmets are effective, but they are not being used enough. The time has come for a major campaign to increase their use."

Comment: In an associated editorial in the New England Journal of Medicine, there is discussion about the possible need for safety helmet laws and the infringement on personal freedom that such laws produce. I believe that this argument deflects our thinking from the basic issue. Seat belts save lives. We need to encourage their use by whatever means are available. Education? Certainly. Collective pressure? Why not. Seat belt laws? If necessary. The same holds true for bicycling helmets.

For me, these are easier ethical issues than the ones we face every day in our nursery or pediatric intensive care unit, where what seem to me to be the real ethical dilemmas constantly unfold. Bicycles are fun; they are good exercise. Helmets are perceived to be bulky and uncomfortable (they need not be) and seem silly and unnecessary. Not so! Physicians need to begin the process of education. To do so, they need to educate themselves. (R.H.R.)
REFERENCES


2. Todd, JA, Bell JI, McDevitt HO. HLA-DQB gene contributes to susceptibility and resistance to insulin-dependent diabetes mellitus. Nature. 1987;329:599–604


SUGGESTED READING

Brink SJ. Pediatric and Adolescent Diabetes Mellitus. Chicago, IL: Year Book Medical Publishers, Inc. 1987


Self-Evaluation Quiz

6. Each of the following is a true statement about the genetic factors involved with insulin-dependent diabetes mellitus (IDDM), except:

A. At least 90% of white patients who have IDDM have HLA-DR3 and/or -DR4.

B. HLA-DR2 and -DR5 appear to protect against IDDM.

C. The mechanism of inheritance of IDDM is an autosomal dominant trait.

D. Genetic susceptibility alone is not sufficient to result in clinical diabetes.

E. Genetic factors appear to outweigh environmental factors in the development of clinical diabetes.

7. Which of the following is likely finding long before the development of clinical IDDM?

A. Abnormal glucose tolerance.

B. Sluggish insulin response to glucose challenge.

C. Abnormal fasting blood glucose levels.

D. Presence of antistreptococcal antibodies.

E. Glucosuria.

8. Which of the following is a practical technique for maintaining near normoglycemia with IDDM?

A. Individualized diet planning.

B. No more than one insulin injection per day.

C. Use of short-acting insulin alone.

D. Use of intermediate-acting insulin alone.

9. Capillary blood measurements in a child who has IDDM need to be taken at each of the following times only once per week, except:

A. Before breakfast.

B. Before lunch.

C. Before bedtime.

D. At 2 or 3 AM.

10. Each of the following needs to be evaluated annually in a child or adolescent who has IDDM, except:

A. Growth percentile.

B. Oral glucose tolerance.

C. Renal function.

D. Deep tendon reflexes.

E. Thyroid status.
Congenital Dislocation of the Hip

of choice by the majority of physicians is the use of a Pavlik harness. Described in 1957,14 this device encourages both flexion and free abduction. It allows the femoral head to be directed toward the acetabulum while preserving the capacity for motion in a safe range, or "safe zone,"16 facilitating reduction and minimizing the risk of avascular necrosis.

Most (80% to 93%) children younger than 6 months of age with congenital dislocation of the hip may be successfully treated with a Pavlik harness. The Pavlik method17 does not require hospitalization or surgery when it is successful in this age group. Stability of the hip in the newborn with the Pavlik harness can usually be achieved in approximately 4 weeks. After the newborn period, the total duration of treatment is approximately one to two times the age at which initial treatment was started. If the femoral head does not become centered after 2 to 3 weeks, the method should be abandoned and traction and closed reduction may be performed. A home traction program supervised by a clinical nurse specialist can minimize or even eliminate hospitalization, thereby reducing cost and parental anxiety.

Other methods and devices have also been successfully used to treat congenital dislocation of the hip including the Frejka pillow, the Craig splint, and the von Rosen splint. Multiple diapers are ineffective to stabilize a grossly unstable hip and are mentioned here to be condemned.

SUMMARY

Early diagnosis and treatment are the keys to a successful result in infants with congenital dislocation of the hip. In the neonatal period, a majority of infants with hips that would later be found to be dislocated can be detected and effectively treated. With the use of ultrasonography to supplement clinical suspicion, the number of children with congenital dislocation of the hip diagnosed in the newborn period should be expected to increase. Repeated examination, especially during the first 6 months of life, can be expected to detect those additional children with congenital dislocation of the hip who were not detected in the nursery.

The Pavlik harness has been shown to obtain a successful result in most children younger than 6 months of age while holding the incidence of avascular necrosis to nearly zero. Even though these results are encouraging, the problem must be discovered early for the child with congenital dislocation of the hip to be treated optimally. Thus, it is of the utmost importance that the physician have an awareness of this problem. The primary physician must also continue to conscientiously examine the hips of patients on a regular basis even after the initial examination and, when necessary, use the added modalities available to him or her to accurately diagnose questionable hip conditions of patients.

REFERENCES


Self-Evaluation Quiz

11. Dislocated hip is best defined as:
A. Complete displacement of the femoral head from the acetabulum.
B. Complete displacement of the femoral head from the acetabulum with slight force.
C. Partial displacement of the femoral head from the acetabulum.
D. Partial displacement of the femoral head from the acetabulum with slight force.

12. Each of the following factors is likely to be associated with an increased risk for congenital dislocation of the hip (CDH) except:
A. Breech presentation.
B. White race.
C. Positive family history.
D. Facial abnormalities.
E. Male.

13. The most useful method for detecting CDH is:
A. Physical examination.
B. Plain roentgenography.
C. Real-time ultrasonography.
D. Arthrography.
E. Magnetic-resonance imaging.

14. The Ortolani method is best defined as:
A. Dislocation of the hip by downward pressure on the adducted flexed thigh.
B. Reduction of the dislocated hip by downward pressure on the adducted flexed thigh.
C. Dislocation of the hip by abduction of the flexed thigh.
D. Reduction of the dislocated hip by abduction of the flexed thigh.

15. Effective treatments for CDH include the use of each of the following except:
A. Pavlik harness.
B. Frejka pillow.
C. Triple diapers.
D. Craig splint.
E. von Rosen splint.