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Cover: Breton Girls, Dancing, Pont Aven, by Paul GAUGUIN (Copyright, National Gallery of Art, Washington, DC; Collection of Mr and Mrs Paul Mellon). Gauguin was a French Symbolist and lived from 1848 to 1903. Gauguin traveled the world as a seaman and pursued a career in banking in Paris and Copenhagen before concentrating on his skills as a painter and sculptor. He was determined to develop a new approach to painting through which to symbolically express a thought or mood, in contrast to the impressionist approach which sought to reproduce a scene through the exact recording of every nuance of color and light. Completed in 1888, Breton Girls Dancing, Pont Aven is one of Gauguin’s earliest works in this new style. The themes of friendship, community, exercise, and appreciation of nature depicted here are important elements in the total health and development of every child.

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Commentary

Literacy and the Pediatrician

Since the 1955 publication of Why Johnny Can’t Read, controversy concerning literacy has raged among educators, parents, and politicians. Pediatricians, for better or worse, have kept out of the fray, confining their efforts to the early detection of language and learning disabilities. No longer. There are now an estimated 23 million illiterate Americans, and pediatricians are increasingly faced with reading failure and its consequences. In a field already crowded with professionals, pediatricians have special contributions to make not only toward diagnosis and management but also toward prevention.

Illiteracy, like a pebble in a pond, lies at the center of an expanding front of psychosocial problems. The ability to read fluently is the major intellectual challenge of primary school and the key to subsequent academic and social success.1 Children who struggle unsuccessfully with this complex challenge experience increasing difficulties as the demands to learn from, and produce, printed material intensify throughout the school years. These children may experience repeated cycles of failure, frustration, and low self-esteem, which, in turn, may contribute to truancy, substance abuse, or teenage pregnancy.2 3

The theory of emergent literacy offers insights into both the problem and possible solutions. This theory proposes that literacy is a natural human behavior, analogous to speech. Just as speech develops from prevocal forms of communication, so the foundation of literacy—the sense that written words convey meaning that can be decoded—develops by immersion in a print-rich environment which includes lists, signs, catalogs, magazines, and, most important, books. 4 There is experimental as well as anecdotal evidence that children benefit from being read to as early as the first months of life.5 6 Infants who are read to associate books and reading with warm human contact and a general feeling of well-being; books become treasured objects to be looked at, handled, and even tasted. After a toddler can carry a book to his or her parents, he or she can add “reading” to his or her important repertoire of self-initiated activities. For preschool children, stories fulfill an emotional need by dealing with powerful fantasies and frustrations.7

These early experiences together with parent modeling “prime” children for reading. After children understand that written words convey meaning, they naturally set about figuring out how, much as they figure out the intricacies of spoken grammar without formal lessons.8 Because books carry strong positive emotional associations, children have the motivation needed to tackle phonics and word decoding when in school. Lacking this, children may justifiably experience learning to read as something unrewarding, uninteresting, and definitely to be avoided.

Children may miss out on preliteracy experiences for a variety of reasons. Parents who regard reading as a chore, or who are illiterate themselves, may find it hard to pass on a love of books to their children. In addition, children’s books are expensive. Many parents, regardless of income, assume that preschool children are too young to “understand” books or that they will “get enough reading in school,” missing the point that the desire to read needs to develop well before then. Because of the special relationship between pediatricians and parents, we can address these issues as part of well-child care, long before school or Head Start come into the picture. We can also approach the problem programatically.

At Boston City Hospital, we have developed a project called Reach Out and Read (ROAR). The program includes volunteers who read aloud in the waiting room of the primary care clinic, seminars to train pediatric residents about emergent literacy, and provision, at each well-child visit from 6 months to 5 years of age, of free children’s books as well as guides to libraries and other preliteracy activities. Parents are urged to read to their children but not to pressure them. A child exposed to literacy in a positive light will learn to read when he or she is ready; a child who is pushed to read early may come to resent the whole process.9 Response so far has been encouraging. Typically, a volunteer enters the waiting room, asks, “Who wants a story?” and is promptly mobbed by patients and their siblings. Parents at first look on, then catch on. We have enjoyed watching parents, surprised and proud, as their young child studies a book, turns the pages, talks.
Self-Evaluation Quiz

1. True statements regarding the natural history of capillary (strawberry) hemangiomas include each of the following except:
   A. They are usually present at birth.
   B. They increase rapidly in size in the first months of life.
   C. More than 75% reach maximal size by 6 months of age.
   D. By 5 years of age, 90% completely resolve.

2. Features of cavernous hemangiomas generally include each of the following except:
   A. Flesh color to blue.
   B. Deep placement.
   C. Solitary.
   D. Globular or multilobular.
   E. Absent at birth.

3. A true statement about the appearance of port wine stains (nevus flammeus) is:
   A. They are not present at birth.
   B. Most lighten and involute eventually.
   C. They are classically unilateral.
   D. They rarely appear on the face.
   E. They cover very limited areas of the body.

4. Characteristics of periorbital hemangiomas include each of the following except:
   A. Strabismus.
   B. Amblyopia.
   C. Optic atrophy.
   D. Ophthalmalgia.

5. Each of the following is true about the Spitz (spindle cell) nevus, except:
   A. Usually occurs on the face.
   B. Most common in children 3 to 13 years of age.
   C. Typically a pink nodule with prominent telangiectasia.
   D. Has histological features that resemble melanoma.
   E. Often evolves into an amelanotic malignant melanoma.

ferred for cholecystectomy, but if splenectomy is to be accomplished simultaneously for splenic sequestration, a midline or transverse upper abdominal incision may be used. Incidental appendectomy will be beneficial because of future difficulty in distinguishing appendicitis from abdominal crisis.

The safety of elective cholecystectomy with careful management has been confirmed by recent reports from major pediatric surgical centers.\textsuperscript{16,19} Successful management of six children after having cholecystectomies performed because of sickle cell disease (including two undergoing simultaneous splenectomy for sequestration) at Vanderbilt Children’s Hospital during the past 7 years without significant morbidity and no mortality also supports this recent trend.

**Thalassemia**

Gallstones occur in only 2% of children with thalassemia major, largely because of the use of a hypertransfusion regimen. However, in all patients with abdominal symptoms, ultrasonographic studies should be performed, and elective cholecystectomy should be performed when cholelithiasis is diagnosed.

**SUMMARY**

During the past two decades, cholelithiasis has been recognized in increasing numbers of pediatric patients. This diagnosis should be considered in the event of upper abdominal complaints, particularly when one or more risk factors are evident. The etiology may be unknown or may be related to risk factors, including hemolytic conditions. In recent years, it has become evident that approximately 80% of gallstones in children are not due to hemolytic disease and that the remaining 20% are related to recurring hemolysis. The diagnosis of gallstones is best confirmed with ultrasonography. Routine ultrasonographic evaluation should be performed at intervals for all children who received TPA for more than 4 weeks, particularly those who have had ileal resection or have had chronic enteritis (Crohn disease).

Cholecystectomy is the procedure of choice for symptomatic children with cholelithiasis, regardless of age. Cholecystectomy is recommended for the asymptomatic child younger than 3 years of age when echogenic shadows have been present for at least 12 months following resumption of oral feedings or when the gallstones are radiopaque. Also, cholecystectomy is advised for asymptomatic children who are older than 3 years of age if ultrasonographic studies confirm that echogenic foci with shadowing are true stones and not echogenic sludge. Complications of common bile duct obstruction, pancreatitis, perforation with bile peritonitis, and life-threatening sepsis may thus be prevented. Morbidity and mortality following cholecystectomy are expected to be relatively low in the pediatric age group.

**REFERENCES**


**Self-Evaluation Quiz**

6. Among the following, the factor least likely to contribute to the increasing frequency of diagnosis of cholelithiasis in infancy is increased:
   A. Use of ultrasonography.
   B. Use of parenteral hyperalimentation.
   C. Frequency of hemolytic disease.
   D. Frequency of small bowel resection for necrotizing enterocolitis.

7. True statements regarding cholelithiasis in infancy include each of the following except:
   A. Gallstones commonly evolve out of a sludge of calcium bilirubinate.
   B. “Sludge balls” may be an intermediate step in the formation of some gallstones.
   C. Radiopaque gallstones often disappear spontaneously.
   D. The finding of gallstones that persist for 12 months is an indication for cholecystectomy in an asymptomatic infant.

8. True statements regarding cholelithiasis in infants, children, and adolescents include each of the following except:
   A. Clinical findings of cholelithiasis in the neonatal period may resemble those of sepsis.
   B. Fever is commonly found in older children with cholelithiasis upon initial examination.
   C. The incidence of nonhemolytic cholelithiasis in children is relatively stable throughout the world.
   D. The incidence of hemolytic cholelithiasis varies with ethnicity.

9. Among the following, the most accurate procedure for diagnosis of cholecystitis in a patient in whom the condition is suspected is:
   A. Ultrasonography.
   B. Cholescintigraphy.
   C. Computed tomographic scan.
   D. Complete blood cell count.
   E. Magnetic resonance imaging.
patients highlight the importance and potential outcomes of the clinical management of renal failure.

No currently available data definitively address the effects on the rapidity of decline in glomerular filtration rate of limiting protein and/or phosphorus intake in children. Nor are data available addressing the lower limit of protein intake that might minimize renal hypertension. Patients with uremic neuropathy, uremic encephalopathy, or uncontrollable hypertension are at risk for dialysis. The OPTIMAL TREATMENT FOR THE PEDIATRIC PATIENT WITH END STAGE RENAL DISEASE

Successful transplantation is the optimal treatment for the infant, child, or adolescent with end stage renal disease. As it offers the potential for full rehabilitation and a "normal" life, dialysis is an expedient tool to maintain life until such a successful transplantation can be accomplished. 

REFERENCES

Self-Evaluation Quiz
10. Among the following, the least likely direct consequence of the physiologic disturbance in chronic renal failure is:
A. Hyperkalemia
B. Hypokalemia
C. Hypernatremia
D. Hypopotassemia
E. Hyperphosphatemia
11. Of the following conditions, the one least likely to accelerate decline in renal function in children with chronic renal failure is:
A. High protein intake
B. Hypertension
C. Anemia
D. Hyperphosphatemia
12. Factors contributing to renal osteodysplasia include:
A. Hyperparathyroidism
B. Hypophosphatemia
C. Vitamin D deficiency
D. Both A and B

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trophies in children with chronic renal failure include each of the following except:
A. Impaired production of calcitriol.
B. Hyperphosphatemia.
C. Hypercalcemia.
D. Iatrogenic aluminum toxicity.

13. A true statement about treatment of the side effects of chronic renal failure in children is:

A. Anemia does not respond to erythropoietin.
B. Peripheral neuropathy responds to vitamin B₁₂.
C. Delay in sexual development does not improve after renal transplantation.
D. Growth retardation responds to growth hormone.

14. Absolute indications for initiation of chronic dialysis include each of the following except:
A. Hypertension.
B. Uremic pericarditis.
C. Uremic polyneuropathy.
D. Renal osteodystrophy.

Testosterone Response to Athletic Training in Adolescent Runners


Information about hormonal changes in pre- and postpubertal runners has not been available until recent years, and what has been available has mostly been from observations in young women, who have either amenorrhea or oligomenorrhea associated with endurance training for running. In this instance, it has been attributed to a disturbance in the hypothalamic-pituitary-gonadal axis. Not so with young adolescent males, who in controlled studies demonstrated no change in testosterone levels from the preconditioned to the postconditioned state and not alteration in the function of the hypothalamic-pituitary-gonadal axis. However, it is important to note that the serum testosterone level increases markedly at the time of puberty in response to the pituitary luteinizing hormone. Rather than being related to the direct effect of endurance training for running, in those instances where there is a significant loss of weight and body fat, there is also a measurable decrease in serum testosterone in this age group. As a runner ages beyond adolescent years, there seems to be a lower testosterone level associated with training for endurance, which may be related to factors such as decreased hepatic blood flow and decreased clearance, hemococoncentration, catecholamine stimulation, and changes in muscle sensitivity.

Although there is a well recognized occurrence of early skeletal and sexual maturation in young males athletes, this does not seem to be related to either total or free serum testosterone, but it is more likely due to the tendency of males who mature early to excel in sports.

Comment: There is much yet to be learned about the maturational process in pre- and postadolescents under normal circumstances and the associated hormonal influence. When there is superimposed on an already very complex process the additional variables of intense physical conditioning for endurance and the potential adverse effects that may result in some instances, it behooves pediatricians to advise and monitor these young and dedicated individuals accordingly. (Fernando A. Guerra, MD, Editorial Board)