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COVER
Working in the medium of batik, Paul Nazalamba creates images that are drawn from his native country, Uganda, and that reflect the strength, struggle, and beauty of all people, especially children and adolescents. We chose to use his “At Play” (1988) to show a modern, indigenous artist's work that illustrates the color and joy of such artists. Mr. Nazalamba's works are on display at his studio in Los Angeles, California. Reproduced with permission.

ANSWER KEY
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| 1. Jessica is a 4-day-old white female infant whose birthweight was 7 lb 6 oz. Although her mother experienced ruptured membranes, the baby was delivered with no apparent complications after a 36-hour labor. Mother and baby were discharged 48 hours after delivery. Today, both of Jessica’s eyes were red and had a slight exudate. The most common cause of this finding is:  
A. Adenovirus.  
B. Chemical irritation.  
C. *Chlamydia trachomatis*.  
D. *Haemophilus influenzae*.  
E. *Streptococcus pneumoniae*.  

2. Jeff is a 4-year-old white male. He developed bilateral exudative conjunctivitis 2 days ago, and although his mother has bathed his eyes with over-the-counter eye drops four times a day, his conjunctivitis now seems worse. He has no apparent upper respiratory tract infection, and his temperature has been normal. Physical examination reveals there is a moderately severe conjunctivitis, no red throat, and no purulent rhinitis. There is bilateral otitis media. The most likely cause of the conjunctivitis is:  
A. Adenovirus.  
B. *Haemophilus influenzae*.  
C. *Moraxella catarrhalis*.  
D. *Staphylococcus aureus*.  
E. *Streptococcus pneumoniae*.  

3. Alexis is an 8-year-old African-American girl who is brought to your office because of a red, watery, slightly sore right eye. She has a history of vague joint pains, but has not noticed this for several months. There is a family history of asthma. On physical examination, the right eye appears reddened, light seems to bother her, the pupil is small, there is a watery secretion, and her vision is decreased. The most likely cause of her problem is:  
A. Acute conjunctivitis.  
B. Glaucoma.  
C.Trauma.  
D. Uveitis.  
E. Vernal conjunctivitis.  

4. George is a 10-year-old white male who complains of redness, tearing, and photophobia involving both eyes. On physical examination, in addition to redness, tearing, and photophobia, both upper eyelids appear swollen, small opacities are visible across the corneas, and there is a watery nasal discharge. Past history is not remarkable. The most likely diagnosis is:  
A. Acute conjunctivitis.  
B. Atopic keratoconjunctivitis.  
C. Trauma.  
D. Uveitis.  
E. Vernal conjunctivitis.  

5. Donna is a 10-year-old white female who has had itching, redness, tearing, and photophobia of both eyes in the spring and fall for 3 or 4 years. She had eczema as an infant. Her mother has had similar ocular complaints. Your first choice of treatment would be:  
A. Desensitization.  
B. Polymyxin-bacitracin ointment.  
C. Topical corticosteroids.  
D. Topical decongestants.  
E. Topical lodoxamide.
oximeter, it may be prudent to limit its use to following the baseline oxygen saturation; false alarms associated with continuous monitoring of oxygen saturation are likely to overwhelm the parents. In any event, the pediatrician should arrange to monitor the adequacy of oxygenation, growth, and development.

PROGNOSIS

Overall, the prognosis for recovery is good for most infants who have BPD because of their capacity to grow new lung tissue. Once barotrauma is reduced and growth ensues, recovery occurs over weeks to months. The vast majority of infants are no longer oxygen-dependent by 6 months of age and are clinically free of cardio-pulmonary symptoms by 1 year of age. Infants who have severe BPD still may have evidence of chronic small airway disease on pulmonary function testing at 10 to 12 years of age. Growth retardation is common for the first 2 years. Increased susceptibility to respiratory tract infections is a major problem during the first 2 years, andrehospitalization commonly is necessary. The need for long-term endotracheal intubation increases the risk of subglottic stenosis.

A high incidence of neurodevelopmental sequelae occurs in infants whose BPD is severe. Developmental outcome seems related both to perinatal and neonatal events and to the presence or absence of BPD. Babies who have BPD and develop congestive heart failure on the basis of cor pulmonale tend to do less well and may not survive. An increased risk of sudden infant death syndrome has been reported among babies who have BPD; some neonatologists use home monitoring for these infants.

Parents need to be encouraged to participate in the care of their infants. The oscillating clinical course of these infants and the prolonged hospitalization required at regional neonatal intensive care units often make bonding and parental participation difficult. Infant stimulation programs that involve parents and other healthcare personnel are important to enhance parental attachment and involvement and to maximize the infant’s potential.

SUGGESTED READING

Transient Tachypnea of the Newborn

Respiratory Distress Syndrome

Bronchopulmonary Dysplasia
triptyline at bedtime can help many children in relieving anxiety and improving mood and sleep patterns.

Mild pain in these patients can be treated with nonopioid drugs such as acetaminophen and NSAIDs. Patients whose pain is moderate should continue to receive acetaminophen with the addition of short- and long-acting oral narcotics. A combination of a long-acting opioid (methadone or morphine sustained-release) and a short-acting agent (codeine, oxycodone, hydromorphone, or morphine) has been effective among these patients. Adjunctive medications such as antiemetics, antidepressants, and stimulants may be effective in treating nausea and disease associated depression. Severe pain can be treated with continuous intravenous infusions of morphine, fentanyl, or hydromorphone.

BACK PAIN

Unlike the pain syndromes mentioned previously, back pain in children is uncommon and frequently results from organic illness. A clinician faced with back pain in a child should exclude infections and tumors as the underlying etiology. The history should be directed to neurologic changes, alteration in gait, or bowel and bladder dysfunction. Physical examination should include a complete orthopedic and neurologic evaluation. Overuse syndromes in athletes may result in facet syndromes, spondylolysis, fractures of the pars interarticularis, and herniated nucleus pulposus. Treatment depends on the underlying disease and manifestation.

Summary

Much has been written about the recognition and treatment of acute pain, but the syndrome of chronic pain in the pediatric population has received little attention. A pediatrician faced with a child suffering from recurrent or chronic pain first should exclude an underlying organic illness. However, the clinician also should understand that recurrent painful episodes may lack an organic cause; they may be triggered by a variety of external and internal factors, particularly perceived stress. The consequences of the child’s pain and its relief must be evaluated and viewed in the context of rewards, secondary gain, and parental anxiety. Chronic pain may influence self-esteem, socialization, and academic achievement, and these issues must be addressed.

SUGGESTED READING

Schechter NL, Berde CB, Yaster M. Pain in Infants, Children and Adolescents. Baltimore, Md: Williams & Wilkins; 1993

PIR QUIZ

10. Among the following, the best way to assess the severity of pain in children over the age of 6 years is to:
   A. Ask the child to indicate on a rating scale how much it hurts.
   B. Determine the amount of analgesia necessary to bring relief.
   C. Measure the physiologic responses to the pain.
   D. Observe the child’s behavior.
11. Chronic or recurrent pain in children is most likely to have an organic cause when, among the following, the pain involves the:
   A. Abdomen.
   B. Back.
   C. Chest.
   D. Head.
   E. Limbs.
12. In the initial evaluation of a school-age child who has recurrent abdominal pain, the least helpful question for the parents would be:
   A. “Are there any interpersonal tensions in the home?”
   B. “Do you think this problem may be all in his or her head?”
   C. “Does anyone else in the family have the same kind of pain?”
   D. “How is the patient doing academically?”
   E. “Is the patient missing school because of this pain?”
13. Among the following techniques for managing recurrent pain in children, the one with the least current evidence of effectiveness is:
   A. Acupuncture.
   B. Hypnotherapy.
   C. Physical therapy.
   D. Relaxation imagery.
   E. Transcutaneous electrical nerve stimulation (TENS).
STORAGE DISEASES
As enzymatic assays using peripheral blood leukocytes have become available to diagnose storage diseases, bone marrow examination has been employed much less frequently than in the past. Occasionally, however, the presence of “storage” cells in the marrow does provide rapidly available and clinically useful evidence that a storage disease such as Gaucher or Niemann-Pick disease is present.

OTHER CONDITIONS
Children who have leukocytosis and thrombocytosis rarely have conditions necessitating marrow examination. Marrow aspiration may be indicated to rule out leukemia before treating juvenile rheumatoid arthritis with corticosteroids, especially if there are hematologic abnormalities. Examining and culturing the bone marrow also may help establish an infectious etiology in a child who has prolonged fever of unknown etiology; this is especially true if the child is immunocompromised. Aspiration (including culture) and biopsy of the marrow may reveal evidence of unusual infections, such as tuberculosis, Mycobacterium avium-intracellulare, or histoplasmosis. The granulomas of sarcoidosis also may be identified. The presence of nucleated erythrocytes in peripheral blood occasionally can be an indication of serious marrow pathology, but only in the absence of obvious stress to the bone marrow caused by hypoxia, hemolysis, or blood loss.

Summary
The indications for bone marrow examination in children are varied and complex. In children who have isolated anemia, marrow examination usually is limited to those who have severe or persistent normocytic anemia in the absence of blood loss or hemolysis. Bone marrow studies are not necessary in children who have reactive lymphocytes; in most children who have leukopenia, leukocytosis, or thrombocytosis, and in many who have ITP. Marrow examination always is indicated when leukemia is suspected, in children who have pancytopenia of unknown etiology, and when metastatic involvement of the marrow is suspected. If one believes that examination of the bone marrow may be indicated, consultation with a pediatric hematologist/oncologist is recommended. The consultant can verify the need for the examination, decide what specific marrow studies should be performed, and suggest what other laboratory studies could be helpful.

SUGGESTED READING

Pediatrics in Review to Hold 1996 Cover Art Contest: Works by Children!
In 1996, we plan to display a piece of art by children on the covers of our 1996 issues. Four pictures will be chosen, and the cover artwork will be changed quarterly.

Rules of the Contest
1. The contest will run from January through July 1995. (Winners will be chosen in August 1995 for display in 1996. PRIZES will be awarded to each winner!)
2. The theme of each submission: Draw a picture of you (ie, the child/adolescent artist) doing your favorite thing.
3. Qualification: The artist must be either between the ages of a) 5 and 10 years or b) 11 and 15 years. (There will be two categories, by age, for submission and judging.)
4. Requirements: The picture must be in color and be reproducible to a size of 3 inches by 4 inches. FREE HINT TO ARTISTS: Think Big! Small details don’t show up as well.

Pediatricians: Please have your patients send art they would like considered to:
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