Editor and Editorial Office Move – Haggerty

Viral Hepatitis: A, B, C, D, and E – Prevention – Krugman

Pediatric Neurodiagnostic Tests – Ferry

Office Care of Wounds – Lease

Care of the Normal Newborn – Kendig
CONTENTS

COMMENTARY

243 Editor and Editorial Office Move
Robert J. Haggerty

ARTICLES

245 Viral Hepatitis: A, B, C, D, and E—Prevention
Saul Krugman

248 Pediatric Neurodiagnostic Tests: A Modern Perspective
Peggy C. Ferry

257 Office Care of Wounds
John G. Lease

262 Care of the Normal Newborn
James W. Kendig

269 Index of Suspcion
Gregory S. Liptak, Thomas C. Bisett, James W. Sayre

273 Consultation with the Specialist: Diagnosis of the Unknown Poison
Frederick H. Lovejoy, Jr

ABSTRACTS

243 Pediatric Poisoning by Organophosphate and Carbamate-type Pesticides

244 Technical Tips: Mannequins for Enhancing Skills in Pediatric Procedures

272 Chaperones During Examination of the Genitalia

275 Hematoma of the Nasal Septum

276 Bicycle Helmets

277 Listeria monocytogenes

278 Carbohydrate Metabolism in Cystic Fibrosis

279 Detection of Reflux Nephropathy in Infants

COVER

"The Knitting Lesson" (ca 1860) by Jean Francois Millet (1814—1875). Renowned for his peasant paintings, Millet in this painting illustrates the cycles of life and the passing on of skills from one generation to another. One of the major tasks of pediatricians is to teach parents and children skills to promote health. May we do it as gently and lovingly as this mother teaches her daughter knitting. (From the Museum of Fine Arts, Boston, Massachusetts.)

ANSWER KEY

UNIVERSAL IMMUNIZATION OF INFANTS

Hepatitis B vaccine has been used extensively throughout the world since its licensure in November 1981. Extensive experience involving many millions of vaccinees has confirmed its safety and efficacy. Hepatitis B vaccine currently is being incorporated into the Expanded Program on Immunization of the World Health Organization. The first dose of vaccine is given to all infants soon after birth. Additional doses are given at subsequent routine visits. Universal immunization of all infants in the United States is now recommended by the Advisory Committee on Immunization Practices of the Centers for Disease Control and the Committee on Infectious Diseases of the American Academy of Pediatrics. The preferred schedule is to give: 1) the first dose of vaccine at birth before discharge from the hospital; 2) the second dose at the first routine visit 1 to 2 mo later; and 3) the third dose at a routine visit between 6 and 18 mo of age. An alternative schedule would include the first dose at 2 mo of age, the second dose at 4 mo of age, and the third dose at 6 to 18 mo of age. It is anticipated that in the future multiple antigen preparations will include hepatitis B, diphtheria-tetanus toxoids-pertussis, poliovirus, Haemophilus influenzae type b, and hepatitis A.

Treatment

There is no specific treatment for children who are infected with hepatitis A, B, C, or D. The disease is generally so mild that bed rest is unnecessary after the acute stage. The child’s diet and return to activity usually are gauged by the child’s desire. When anorexia is present, food is rejected; broths and fruit juices should be offered. A normal diet is recommended when appetite returns. Corticosteroids and other drugs are not indicated for children who have uncomplicated hepatitis.

The efficacy of alpha-interferon therapy for chronic hepatitis B and C infections has been documented in various controlled trials. About 30% to 40% of patients respond to therapy. However, 50% of patients may relapse when therapy is discontinued. Patients receiving therapy should be monitored for the possibility of adverse psychological effects.

Suggested Reading


### Diagnostic Quiz Tests

5. Diagnostic advantages of magnetic resonance imaging in comparison to computed tomography include all of the following central nervous system problems, except:
   - A. Detection of calcification.
   - B. Deposition of brain iron at site of prior infarction.
   - C. Dysmyelination features of carnitine deficiency.
   - D. Posterior fossa tumors.

6. A 10-mo-old girl presents with the clinical picture of delayed psychomotor development, hypertonia, grand mal seizures, and microcephaly. No dysmorphic features are present. A diagnosis of neuronal migration dysplasia is suspected. The best test for detection of this type of disorder is:
   - A. Cerebrospinal fluid electrophoresis for abnormal protein.
   - B. Cranial ultrasonography.
   - C. Computed tomography.
   - D. Magnetic resonance imaging.
   - E. Positron emission tomography.

7. An 18-mo-old boy is seen for evaluation following his first febrile seizure. Past history and present physical examination are normal. The most appropriate next step in management is:
   - A. Reassure parents regarding benign prognosis.
   - B. Obtain an electroencephalogram while sleeping.
   - C. Obtain a cranial computed tomographic study.
   - D. Order skull roentgenograms.
   - E. Request urinary screen for abnormal metabolites.

8. A 7-y-old girl presents with a 1-y history of recurrent headaches not typical of migraine. Physical examination, including neurologic, is normal. The most appropriate next step in management is:
   - A. Obtain an electroencephalogram both while awake and while sleeping.
   - B. Order skull roentgenograms.
   - C. Request a cranial computed tomographic study.
   - D. Follow conservatively.
   - E. Obtain a vestibular evoked potential study.

9. A 14-y-old girl experienced the onset of a seizure disorder 6 mo ago. The seizures are characterized by initial confusion and anxiety, followed by automatized repetitive lip-smacking and terminating in postictal confusion with amnesia for the event. The next most appropriate step in management is to:
   - A. Obtain a computed tomographic study.
   - B. Order a cranial roentgenogram.
   - C. Obtain a cranial magnetic resonance study.
   - D. Order a positron emission study.
   - E. Obtain a simultaneous electroencephalographic and video monitoring study.

10. A 2-y-old boy has a 6-wk history of early morning emesis unassociated with nausea. On examination, he is afebrile and irritable but alert. Slight truncal ataxia is present. On auscultation of the head with tapping of the contralateral side, a "cracked pot" sound indicates separation of sutures. The next most appropriate step in management is:
    - A. Obtain a computed tomographic study.
    - B. Perform a lumbar puncture with studies for tuberculosis.
    - C. Obtain a cranial magnetic resonance imaging study.
    - D. Order a positron emission tomographic study.
    - E. Request a brain electrical activity mapping study.

11. Among the following, cranial ultrasonography is most useful in studies of:
    - A. Benign hydrocephalus of childhood.
    - B. Acoustic neuroma.
    - C. Herpetic meningoencephalitis.
    - D. Neonatal periventricular hemorrhage.
    - E. Cerebral injury with child abuse.
The extremity should be elevated and intravenous antibiotics instituted. The initial antibiotic of choice should be a penicillinase-resistant penicillin or an appropriate cephalosporin. Antibiotic selection can be tailored to the infecting organism once culture results become available.

Osteomyelitis may develop within 2 to 5 d of initial injury. Early cases are characterized by a paucity of systemic signs, but usually are marked by local signs of tenderness, edema, and erythema. Initially, there will be no changes seen on plain radiographs. Bone scan is useful during the first 2 wk to delineate the extent and location of infection. The fact that Pseudomonas aeruginosa is the most common pathogen should be considered when assigning antibiotic coverage. An aminoglycoside in combination with a synergistic penicillin is a good first choice. Established osteomyelitis requires aggressive surgical treatment, and all such cases should be referred for inpatient hospital management.

Nonhealing wounds are not always the result of infection but can indicate the presence of a retained foreign body. This possibility should be assessed carefully if wound healing does not follow the expected course.

REFERENCES

PIR QUIZ
12. Four hours ago, a 9-y-old girl fell, cutting her right forearm on a piece of glass. On examination, you note in mid-forearm a dirty wound on the dorsal surface, 4 cm long and 1 cm deep, with edges that can be apposed readily. She previously had received 5 scheduled tetanus immunizations, the last just before entering kindergarten. To provide optimal care, you would perform each of the following actions, except:
A. Assess tendon and neurovascular function.
B. Achieve analgesia and hemostasis by slowly infiltrating xylocaine with epinephrine using a 30-gauge needle.
C. Irrigate the wound thoroughly with saline using a syringe and 18-gauge angiocath.
D. Perform a multilayered primary closure.
E. Assist tetanus prophylaxis by administering adsorbed toxoid.

13. Of the following patients with thermal burns, the one which may be treated simply and safely by the pediatrician without hospitalization or consultation is:
A. A 6-mo-old girl with an immersion burn of both feet.
B. A 1-y-old boy with a small electrical burn on the corner of his mouth.
C. A 5-y-old boy with a 3% superficial partial thickness burn of the chest sustained while trapped in a burning house.
D. A 2-y-old girl with a 6% superficial partial thickness splash burn of the shoulder and back.
E. A 9-y-old boy with a circumferential partial thickness burn of the fingers of his right hand.

14. An appropriately immunized 2-y-old girl has a fresh 6% superficial partial thickness scald burn on her chest. As optimal initial care, you would carry out each of the following, except:
A. After assuring analgesia, wash the burn with a dilute povidone-iodine solution.
B. Using aseptic technique, aspirate all small bullae and debride those larger than 2 cm in diameter.
C. After cleansing and debridement, cover the burn with an occlusive sterile gauze and bacitracin ointment dressing.
D. Routinely prescribe broad-spectrum systemic antibiotics as prophylaxis against burn wound cellulitis.
E. Reexamine the burn within 24 to 48 h.

15. A 6-y-old girl comes to your office after suffering multiple shallow facial abrasions in a fall from her bicycle. You can facilitate prompt healing and the best cosmetic result by performing each of the following actions, except:
A. Remove dried blood, serum, and superficial debris by vigorous irrigation with a dilute povidone-iodine solution.
B. Using local analgesia, remove all embedded debris with a surgical scrub brush.
C. Dress the clean wound with a combination of bacitracin ointment and sterile gauze, which is changed at least daily.
D. Routinely prescribe oral antibiotics to prevent secondary infection.
E. Suggest that an effective sunscreen be used regularly on the injured area after healing for a period of 6 to 12 mo.

16. A 9-y-old boy is brought to the emergency department after stepping on an unknown sharp object while playing barefooted in a field. On examination, you note an irregular 4-mm puncture wound of the right mid-foot. You should perform each of the following actions, except:
A. Review tetanus immunization history.
B. Obtain a plain radiograph to identify an embedded radiopaque foreign body.
C. Excise the wound margin and remove any obvious superficial foreign body.
D. Probe the wound for deep foreign bodies.
E. Irrigate the wound thoroughly with saline using an 18-gauge angiocath.
be examined between 4 and 8 wk of age by an ophthalmologist skilled in recognizing retinopathy of prematurity are listed in Table 4. Profiles of infants who should have a brainstem auditory evoked response test for hearing evaluation are listed in Table 5.

An infant’s feeding pattern, weight, and degree of jaundice must be evaluated before discharge. The proper use of car seats must be reviewed. A follow-up visit to the pediatrician’s office must be scheduled before the infant is discharged.

Some serious ductal-dependent congenital cardiac defects, such as hypoplastic left heart and coarctation of the aorta, may not present until after 48 h of age. If an infant is discharged before then, the first visit to the pediatrician’s office should be within 3 d. This visit also will help with early recognition of progressive jaundice and feeding failures. Infants should then return to the pediatrician in 2 to 4 wk. By 2 wk of age, most full-term infants will have regained their birth weight.

**SUGGESTED READING**


Bloom RS, Copley C. *Textbook of Neonatal Resuscitation.* American Heart Association and the American Academy of Pediatrics; 1987


**Guideline for Perinatal Care.** 2nd ed. American Academy of Pediatrics and the American College of Obstetricians and Gynecologists; 1988