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COVER

"Le Gourmet," painted in 1901 by Picasso (1881-1973) during his “Blue Period,” demonstrates the natural appetite of the small child, who appears well nourished and even is eating standing up. Eating problems in children are not inherent in their stage of development but are their response to adverse environments. The blue color, however, suggests a threat to this healthy state. Child health professionals must balance this innate healthy aspect of childhood against the environmental threats to their well-being and be advocates for the healthy development of children. (This painting is from the National Gallery of Art's Chester Dale collection and is reproduced with permission.)

ANSWER KEY

treatment of suspected life-threatening cocaine overdose in the infant is supportive.

Treatment

Seizures are best treated with diazepam. Imbalances in pH must be corrected and the patient monitored and treated for cardiac arrhythmias. Other previously noted medical complications are treated supportively.

Patients who present acutely intoxicated require stimulation to be kept to a minimum until the immediate "high" abates. Benzodiazepines may help in the face of psychomotor agitation. If psychosis is present, haloperidol is the drug of choice. However, neuroleptics should be used in the lowest possible dose because they may lower the seizure threshold.

As noted previously, there is a rather long period of withdrawal from cocaine marked by depression and anhedonia. This is a particularly vulnerable period for the addict attempting to maintain abstinence and can last up to 3 months. Numerous drugs have been tried to decrease craving and reverse withdrawal symptoms, with equivocal results. Amantadine, bromocriptine, and tricyclic antidepressants have been used at standard therapeutic doses by many and are thought to be helpful by some. Whether these beneficial effects derive from therapeutic actions or as a placebo response to these drugs is unclear.

The previously noted treatments are important. However, in addiction, the only acceptable goal of treatment is a lifelong abstinence from all addicting psychoactive agents, with particular emphasis on the drug of choice. Very rarely is this achieved through pharmacologic intervention or one-on-one psychologic intervention alone. The achievement of this goal usually depends on the patient’s participation in a structured intensive drug treatment program. Most of these treatments can occur on an outpatient basis, with only a small percentage requiring inpatient care, and they are enhanced greatly by the patient’s involvement in a 12-step self-help group.

SUGGESTED READING


POINT-COUNTERPOINT

Otitis Media

A reader questioned Dr. Howie’s article on otitis media (PIR 1993;14:320–323) on three counts:
1. His recommendation not to use amoxicillin as first-line treatment for acute otitis media;
2. His discussion of otitis media with perforation; and
3. His recommendation to place tympanostomy tubes in “any youngster who has otitis media with effusion that persists for 6 to 12 weeks.”

Dr. Howie responds:
“I share with you the frustration of the ever-present challenge of otitis media with effusion (OME), whether acute, recurrent acute, or persistent, in the pediatric population that we serve. The ‘relapsogenic nature’ of amoxicillin (eg, ampicillin and amoxicillin) seems to be part and parcel of the problem. This observation of mine has not been confirmed or refuted by other pediatricians in clinical studies. It is based on my observation of a randomized trial of 103 infants, with 48 infants falling into the treatment group getting ampicillin for their initial and up to third episode of OME and 55 infants getting either erythromycin estolate or penicillin V-K mixed with triple sulfonamide in the other group. Fourteen patients in the ampicillin group went on to have six or more attacks of OME requiring antibiotics, whereas only three of the ‘mixture’-treated group had six or more episodes of OME. More recently, I have observed that one third of patients treated with amoxicillin-clavulanic acid who grow H influenzae or pneumococcus from their ears relapse within 72 hours after a 10-day course of antibiotic. This ‘lighting relapse’ does not seem to happen with other antibiotics, such as cephalosporins or mixtures of sulfonamides with erythromycin or penicillin V-K or procaine penicillin-bicillin IM.” (In his article, he recommends penicillin with a sulfonamide or any therapy “that misses less than 10% of the human principal pathogens is most desirable.”)

“Your observation that very few patients in these United States end up with a chronic persistent perforation is very true in my experience, too. Most of these, I note, are in the medically underserved or third-world countries. The persistent perforations that we see most often in Texas and the adjacent states are those deliberately placed to ventilate fluid-filled middle ears by medical means, for example, pressure-equalization tubes. I have served on international committees that tried to reach a consensus on exactly when (after appropriate antibiotic therapy) the ventilation tubes should be placed. The usual decision of these committees has been 60 to 90 days if expert surgeons are available to do the job. Admittedly, corticosteroids sometimes will clear the fluid-filled ears, but not as regularly or as permanently as ventilation tubes. It has been my experience that in larger metropolitan areas, one can find a skilled pediatrician or ENT surgeon willing to place these tubes without general anesthesia in a hospital. I certainly try to teach pediatric residents this procedure.

“This procedure can be performed on an outpatient basis under local iontophoresetic anesthesia with moderate sedation with meperidine or the ‘cocktail’ of your choice. I have never paid anything extra for malpractice coverage to perform this procedure in states from Alabama to California and would not expect others to, unless they use general anesthesia.”

3. During an annual physical examination, a 17-year-old female patient asks about the risks of cocaine use. Among the medical complications produced directly by cocaine use, you would most appropriately identify:
A. Hemolytic anemia.
B. Hypoparathyroidism.
C. Malignant obesity.
D. Pathologic fracture.
E. Ventricular tachycardia.

4. An agitated, periodically violent 16-year-old girl manifesting paranoid ideation is admitted to the intensive care unit following repeated intravenous cocaine use at a party. You are aware that multiple drug use is increasingly common and that cocaine frequently is cut with a variety of substances. Aside from cocaine itself, which of the following substances is most likely to be exacerbating the girl’s symptoms?
A. Ethyl alcohol.
B. Heroin.
C. Lidocaine.
D. Phencyclidine.
E. Talc.

5. A homeless 19-year-old girl has delivered an infant weighing 2500 g. She has no history of prenatal care. She admits to use of cocaine throughout the pregnancy, and her urine screen is positive for benzoylcegonine. Which of the following conditions in the infant is most likely to demand special attention in the first 12 hours after birth?
A. Cocaine withdrawal syndrome.
B. HIV infection.
C. Hypovolemic shock.
D. Intrauterine growth retardation.
E. Respiratory distress syndrome (hyaline membrane disease).
Prensky AL. Differentiating and treating pediatric headaches. Contemp Pediatr. 1984;1:12–45
Silberstein SD. Advances in understanding the pathophysiology of headache. Neurology. 1992;42(suppl 2):6–10
Stewart WF, Lipton RB, Celentano DD, Reed ML. Prevalence of migraine headache in the United States. JAMA. 1992;267:64–69

PIR QUIZ

6. Which of the following most clearly sets the stage for the occurrence of migraine in a child or adolescent?
A. Food intolerances.
B. Head trauma.
C. History of migraine in a parent.
D. History of seizure disorder.
E. Stress.

7. Current views of the pathophysiology of migraine:
A. Ascribe the condition to a disorder of neurotransmitters.
B. Ascribe the condition to arterial inflammation.
C. Ascribe the condition to arterial spasm.
D. Ascribe the condition to venous dilation.
E. Have not reached a consensus.

8. An 8-year-old girl had the onset 2 hours ago of a mild left hemiplegia with sensory deficit, followed in 1 hour by a severe right-sided headache. She appears anxious, but is lucid and complaining of headache. Neurologic examination discloses a mild left hemiplegia and left hemianopsia. The optic fundus is normal. The patient has had no previous similar episode. Her mother reports herself as having had two similar episodes as a child. Among the following diagnostic studies, you would give highest priority at this time to:
A. EEG.
B. MRI.
C. Measurement of cerebral blood flow.
D. Radiography of the head.
E. Ultrasonography of the head.

9. A diagnosis of migraine is made in the 8-year-old child described previously. The symptoms subside in several hours. In the prevention of further such attacks of migraine in this child, first priority among the following should be given to:
A. Prophylactic use of anticonvulsant medication.
B. Prophylactic use of ergotamine.
C. Prophylactic use of propranolol.
D. Trial of behavior modification therapy.
E. Investigation of triggering mechanisms.
PIR QUIZ

10. The finding most consistent with the definition of hematuria is:
   A. A positive peroxidase test for hemoglobin in the urine.
   B. Greater than 100,000 RBCs in a 24-hour urine collection.
   C. Greater than 2 RBCs/high-power field of centrifuged urine sediment.
   D. Greater than 12 RBCs/0.9 mm² of unspun urine in a counting chamber.

11. Among the following, the finding most definitive for confirming the presence of a glomerular lesion as the cause of hematuria is:
   A. A greater intensity of blood in the last phase of voiding than in the initial flow.
   B. A positive nitrite test on a first morning voided urine.
   C. Presence of casts containing RBCs in the urine.
   D. Presence of crenated (serrated) RBCs in fresh urinary sediment.
   E. Presence of fresh clots of blood in the urine.

12. A 7-year-old Caucasian girl presents with a 2-day history of sudden onset of painless, gross hematuria. Her history is unremarkable; family history is positive for nephrolithiasis (a maternal uncle). Physical examination is unremarkable. The urine is positive for blood but negative for protein. Culture is negative; renal ultrasonography is normal. The most appropriate next diagnostic study is:
   A. Assay for serum ANA.
   B. Cytoscopic examination.
   C. Determination of serum electrolytes with BUN.
   D. Determination of urine calcium/creatinine ratio.
   E. Measurement of serum C3 concentration.

13. A 5-year-old Caucasian boy has had microscopic hematuria for 8 months. He is asymptomatic. No increase of hematuria occurs with intercurrent respiratory infections. Two brothers, ages 12 and 19 years, are healthy. Repeated physical examinations are normal. Dysmorphic RBCs are present in the urine but proteinuria is absent. Cultures are negative. Serum electrolytes, BUN, sedimentation rate, and streptozyme are normal. Of the following, the findings are most consistent with the diagnosis of:
   A. Henoch Schoenlein purpura.
   B. Hypercalciuria.
   C. Membranoproliferative glomerulonephritis.
   D. Thin basement membrane disease.

14. An 8-year-old boy presents having a history of painless, gross hematuria occurring for several days during a recent acute viral respiratory illness. Past history is noncontributory. Physical examination is unremarkable. On urinalysis, there is microscopic hematuria. On a 12-hour urine study, protein excretion exceeds 20 mg/M² per hour. Serum electrolytes, BUN, streptozyme, C3 concentration, and immune globulins are normal. On reevaluation in 2 months, physical examination is normal. Microscopic hematuria and proteinuria persist in the same quantities as were found initially. The most appropriate next diagnostic step is to:
   A. Measure 24-hour creatinine clearance.
   B. Measure serum circulating IgA-containing immune complexes.
   C. Obtain an ultrasonographic study of kidneys and bladder.
   D. Refer for an audiometric examination.
   E. Refer to a pediatric nephrologist.

15. In children who have asymptomatic microscopic hematuria, the most correct statement is:
   A. An association with nondrug-related allergic disease often can be documented.
   B. An unsuspected coagulation disorder often is present.
   C. The majority do not have significant glomerular disease.
   D. The prevalence is less than 1 in 1000.
   E. Tuberculosis of the kidneys frequently becomes evident in several years.
also consider it to be mildly antipruritic, although this has not been my experience.

SULFUR

Five percent sulfur creme or ointment is the oldest known remedy for the treatment of scabies. Its efficacy and toxicity have never been studied in a modern, controlled trial. Nevertheless, many physicians still consider 5% sulfur cream to be the treatment of choice for infants, young children, and pregnant women. No studies have established the safety of this drug in the treatment of pregnancy, and experience with its use is substantially less than that of the other major agents.

PERMETHRIN

Five percent permethrin has been marketed in the US for approximately the past 4 years. It is a proven effective medication with a single application, which clearly sets it apart from the other active drugs. Permethrin also is used as a popular antipediculocide, which is sold over the counter. This synthetic pyrethrin is a neurotoxin, producing paralysis and death of a wide variety of ectoparasites, such as lice, ticks, fleas, mites, and other arthropods. The drug is in pregnancy category B. It is indicated for use in patients of any age.

Postscabietic Syndrome

Most patients will continue to have visible lesions and pruritus for days to weeks following the use of any of the above-mentioned scabicides. It is important to relay this information to patients at the time of therapy so that they do not continue to reapply the drug inappropriately. I treat the postscabietic syndrome with mild-to-moderate potency topical steroids (hydrocortisone 1%, triamcinolone 0.1% to 0.025%).

Nodular lesions of scabies may take weeks to months to resolve. As previously mentioned, these lesions are most notable on the male genitalia, the upper back, and the anterior and posterior axillary fold. If these are present at the initial evaluation, their slow progress should be pointed out carefully to the parents. This type of patient should be seen in the office after 2 to 4 weeks; moderate-to-high potency steroids, coal tar, or intralesional steroids should be considered.

A few patients will continue to develop vesicles without burrows on the hands and feet. In some situations, these patients look as though they have infantile acropustulosis, a condition seen primarily but not exclusively in African-American children less than 2 years old. The symptomatic lesions appearing on the palms and soles after scabies should not be retreated with scabicides unless the scrapings remain positive. These vesicular lesions usually resolve very slowly, and if severe, may need moderate-to-potent topical steroids or even the occasional use of parenteral corticosteroids.

SUGGESTED READING


PIR QUIZ

16. The following statements about scabies all are correct except:
A. All lesions, whether or not visibly infected, should be treated.
B. Effective scabicides require two applications separated by 1 week.
C. If a diagnosis of scabies is made, all exposed individuals, not only the symptomatic ones, need to be treated.
D. Itching symptoms cease as soon as all the mites are killed.

17. The following statements about the clinical presentation of scabies all are correct except:
A. African-Americans frequently are infected with scabies.
B. Burrows can be found in 90% to 95% of all patients.
C. Infants, children, and adults are equally susceptible to scabies.
D. Secondary lesions are more numerous and prominent than burrows.
E. The burrow is the only characteristic lesion.

18. The following statements about the diagnosis of scabies all are true except:
A. Animal scabies (mange) are not the source of human scabies epidemics.
B. Any patient who itches should be suspected of having scabies.
C. Good light with appropriate magnification is necessary for examination of the web spaces.
D. Hands and feet yield the most positive results for scabies scraping.
E. Only specialists or specially trained individuals should attempt scabies scraping.

Match the treatment (19–22) with the appropriate statement (A–D).
19. Lindane
A. Contraindicated in premature infants less than 2 months of age.
20. Crotamiton
B. Efficacy and toxicity never have been studied.
21. 5% Sulfur
C. Indicated in patients of any age.
22. Permethrin
D. Must be used daily for 5 consecutive days.