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COVER

"Sara Handing a Toy to the Baby" was painted by Mary Cassatt (1845 – 1925). Cassatt, an American artist, was the daughter of a wealthy Philadelphia businessman. She went to Paris to study and never returned. Most of her paintings are of mothers and children, although she herself never married. This lovely painting shows an older sibling handing a toy to her younger brother. We all know that sibling relations are never this serene at all times, but we can always encourage the sharing and love so beautifully shown here. (This painting is reproduced with the permission of the Hill-Stead Museum, Farmington, CT.)

ANSWER KEY

PIR QUIZ

1. A true statement regarding the epidemiology and pathogenesis of hemolytic-uremic syndrome (HUS) is that:
   A. Diarrhea-associated HUS occurs with equal frequency among children of all ages.
   B. In the United States, diarrhea-associated HUS usually is caused by *Shigella dysenteriae*.
   C. Outbreaks of HUS have occurred among attendees of child care centers and other institutions.
   D. The clinical manifestations of HUS are explained by a generalized intravascular coagulopathy.
   E. The incidence of HUS is greater among girls than among boys.

2. Which of the following findings is least likely to be a manifestation of HUS?
   A. Decreased capillary refill.
   B. Oliguria.
   C. Petechiae.
   D. Seizure.
   E. Sudden onset of pallor.

3. The patient who has HUS is most likely to have azotemia and:
   A. Coombs-positive hemolytic anemia, thrombocytopenia, normal intravascular coagulation studies.
   B. Fragmented red blood cells, thrombocytopenia, normal PT/PTT and fibrinogen, elevated fibrin degradation products.
   C. Fragmented red blood cells, thrombocytopenia, prolonged PT/PTT, decreased fibrinogen, elevated fibrin degradation products.
   D. Normocytic anemia with low reticulocyte count, neutropenia, thrombocytopenia, normal intravascular coagulation studies.
   E. Normocytic anemia with reticuloctysis, thrombocytopenia, normal intravascular coagulation studies.

4. A 2-year-old girl has sudden onset of pallor and irritability following a 3-day history of watery diarrhea and abdominal pain. Physical examination reveals a pale, acutely ill-appearing child; vital signs and other findings are unremarkable. Laboratory studies include: hemoglobin, 8.5 g/dL with fragmented red blood cells seen on smear; platelet count, 40,000/mm³; normal intravascular coagulation studies; and creatinine, 2.0. Among the following, the most appropriate initial choice of therapy is to:
   A. Administer maintenance fluids and electrolytes intravenously.
   B. Perform peritoneal dialysis.
   C. Perform a plasma exchange.
   D. Restrict fluid intake to insensible losses plus output.
   E. Transfuse with packed red blood cells and platelets.

5. A 2-year-old girl just diagnosed with HUS is most likely to recover fully without recurrences if:
   A. A maternal aunt and maternal grandfather have a history of HUS.
   B. She has *E. coli* verotoxin-associated HUS.
   C. She has idiopathic HUS.
   D. She has *S. dysenteriae* shiga-toxin-associated HUS.
   E. She has *S. pneumoniae* neuraminidase-associated HUS.
years that will prevent infection if given prior to exposure to the virus, it will be much more difficult to eradicate the virus once it has become integrated into the human genome of lymphocytes, macrophages, central nervous system cells, and other tissues. The use of drugs that retard the spread of the virus within the body already is widespread, and improvements in drug therapy are certain to come. However, the safest and most reliable way to control the disease at present is to ensure that the maximal number of people take every precaution to avoid any form of high-risk activity, including careless handling of specimens, needles, and invasive devices in doctors' offices, clinics, hospitals, and research laboratories.

ASPLENA AND SPLENIC HYPOFUNCTION

The spleen is a major component of the reticuloendothelial system. It plays an important role in the clearance of microorganisms from the bloodstream, as evidenced by splenectomized children having an increased susceptibility to bacterial infections. Hereditary splenic hypoplasia or congenital absence of the spleen also may be associated with increased bacterial infections. The etiologic agent usually is *S. pneumoniae*, but meningococci, *H. influenzae*, *E. coli*, staphylococci, and *S. pyogenes* also are offenders.

Infants who have sickle cell disease often also have splenomegaly, but older children and adults have small infarcted (ie, fibrotic) spleens that have reduced phagocytic and reticuloendothelial function. Thus, individuals who have sickle cell anemia have an increased susceptibility to pneumococcal meningitis and septicemia similar to patients who have had a surgical splenectomy. Some sickle cell patients have decreased lymphocyte responses to mitogen and antigen stimulation. Immunization with pneumococcal and *H. influenzae* vaccines is indicated because they provide some protection, even though asplenic individuals are likely to show a subnormal antibody response.

NEPHROTIC SYNDROME

Peritonitis due to pneumococci (or occasionally to *H. influenzae*, group A streptococci, or staphylococci) used to be a common, sometimes fatal, complication of nephrotic syndrome. Although peritonitis still occurs, systemic infection due to Gram-negative bacilli has become increasingly important in these patients. Decreased B-cell, T-cell, and neutrophil functions have been observed. Pneumococcal and *H. influenzae* vaccines are recommended.

SUGGESTED READING


Buckley RH. Immunodeficiency diseases. *JAMA*. 1987;258:2841–2850


Stites DP, Terr AI, eds. *Basic and Clinical Immunology*, 7th ed. Norwalk, CT: Appleton & Lange; 1991
**Table 6. Standard Patch Test Series for ACD**

<table>
<thead>
<tr>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzocaine 5%</td>
</tr>
<tr>
<td>Imidazolidinyl urea 2%</td>
</tr>
<tr>
<td>Thiuram mix 1%</td>
</tr>
<tr>
<td>Wool Alcohols (lanolin) 30%</td>
</tr>
<tr>
<td>Neomycin sulfate 20%</td>
</tr>
<tr>
<td>p-Phenylenediamine 1%</td>
</tr>
<tr>
<td>Mercaptobenzothiazole 1%</td>
</tr>
<tr>
<td>p-tert-Butylphenol formaldehyde resin 1%</td>
</tr>
<tr>
<td>Cinnamic aldehyde 1%</td>
</tr>
<tr>
<td>Formaldehyde 1%</td>
</tr>
<tr>
<td>Carba mix 3%</td>
</tr>
<tr>
<td>Rosin (colophony) 20%</td>
</tr>
<tr>
<td>PPD mix 0.6%</td>
</tr>
<tr>
<td>Ethylenediamine dihydrochloride 1%</td>
</tr>
<tr>
<td>Quaternium-15 2%</td>
</tr>
<tr>
<td>Mercapto mix 1%</td>
</tr>
<tr>
<td>Epoxy resin 1%</td>
</tr>
<tr>
<td>Balsam of Peru 25%</td>
</tr>
<tr>
<td>Potassium dichromate 0.25%</td>
</tr>
<tr>
<td>Nickel sulfate 2.5%</td>
</tr>
</tbody>
</table>

**SUGGESTED READING (cont)**


Fisher AA. *Contact Dermatitis*, 2nd ed. Philadelphia, PA: Lea and Febiger; 1986


Weston WL, Lane AT. *Color Textbook of Pediatric Dermatology*, St Louis, MO: Mosby Year Book; 1991


**PIR QUIZ**

20. Which one of the following statements about allergic contact dermatitis is *not* correct?
   - A. It is equally common in boys and girls.
   - B. It occurs uncommonly before the first 2 years of age.
   - C. It may develop in areas of the skin not in contact with the allergen.
   - D. Allergens involved are able to penetrate the epidermis.
   - E. Sensitization to specific allergens may occur in more than 20% of the population.

21. Allergic contact dermatitis involves which one of the following steps?
   - A. Antigen stimulates the formation of IgE antibodies.
   - B. Antigen is transported to regional lymph nodes where IgG antibody is synthesized.
   - C. Antigen is processed by epidermal Langerhans cells.
   - D. Antigen interacts with polymorphonuclear leukocytes and incites an inflammatory response.
   - E. Antigen-antibody complexes form.

22. Clues to the diagnosis of allergic contact dermatitis include all but which one of the following?
   - A. The site of the lesion.
   - B. The presence of a pruritic eczematous skin lesion.
   - C. History of exposure to a possible allergen.
   - D. History of long-term exposure to a possible allergen.
   - E. Family history of allergic contact dermatitis.

23. Management of allergic contact dermatitis should include all but which one of the following?
   - A. Topical glucocorticoids if small areas of the skin are involved.
   - B. Oral glucocorticoids if large areas of the skin are involved.
   - C. Treatment for at least 2 to 3 weeks to avoid rebound.
   - D. Recognition that untreated lesions will resolve within a week.
   - E. Identification and removal of the offending allergen.