Characteristics of the clinical course of acute otitis media in children against the background of chronic viral hepatitis V

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Abstract: Acute otitis media (AOM) continues to be a common infection in young children. Milder disease, usually due to viruses or less virulent bacteria, resolves equally quickly with or without antibiotics. A bulging tympanic membrane, especially if yellow or hemorrhagic, has a high sensitivity for AOM that is likely to be bacterial in origin and is a major diagnostic criterion for AOM. Perforation of the tympanic membrane with purulent discharge similarly indicates a bacterial cause. Immediate antibiotic treatment is recommended for children who are highly febrile (≥39°C), moderately to severely systemically ill or who have very severe otalgia, or have already been significantly ill for 48 h. For all other cases, parents can be provided with a prescription for antibiotics to fill if the child does not improve in 48 h or the child can be reassessed if this occurs. Amoxicillin remains the clear drug of choice. Ten days of therapy is appropriate for children <2 years of age, whereas older children can be treated for five days.

Keywords: children, hepatitis v, chronic, contact, infection, bacterial pathogens, amoxillin.

Introduction

The reason for the development of hepatitis B is the introduction of the disease-causing virus into the human body. The disease is especially common in people whose immunity is weakened due to a number of negative factors (alcohol, nicotine, chemical and toxic substances, drugs). Patients are not required to be in social isolation, as the virus does not spread through airborne droplets. Anyone who comes into contact with thepatient should follow the necessary precautions and personal hygiene rules. According to the results of many years of research conducted all over the world, the course of this disease depends on how the patient was infected, as well as his age.If the patient is infected with hepatitis B in a natural way (for example, during sexual intercourse), in this case, there is a high risk of the disease progressing to a chronic stage. This form of hepatitis often occurs in young people, because they do not pay serious attention to their health and do not take

measures to respond to alarming signals of the body. Otitis media, commonly known as a middle ear infection, is a condition characterized by inflammation or infection of the middle ear. It often occurs following a cold, sore throat, or respiratory infection. This condition is particularly prevalent in children, with about 75% experiencing at least one episode by the age of 3.

It is a spectrum of diseases that includes:

1. Acute otitis media (AOM): A sudden onset of infection or inflammation in the middle ear.

2. Chronic suppurative otitis media (CSOM): Persistent or recurrent inflammation or infection of the middle ear.

3. Otitis media with effusion (OME): Fluid accumulation in the middle ear without active infection.

SUBJECTS AND METHODS

One hundred and eighty children with acute bronchiolitis aged 3–18 months who were admitted to pediatrics department, Minia University hospital, were included in the study done in the winter and spring of 2009. In patients with AOM at entry or developed AOM within 14 days, Gram-stained smears, bacterial cultures, and enzyme-linked immunosorbent assay (ELISA) were performed on middle-ear aspirates to detect the presence of bacterial pathogens and RSV respectively

RESULTS

One hundred children (55.6%) with acute bronchiolitis had AOM at entry or developed AOM within 14 days, 45 patients (25%) had developed otitis media with effusion, and only 35 patients (19.4%) remained free throughout the 2-week observation period. Of 135 middle-ear aspirates (65 unilateral and 35 bilateral), bacterial pathogens were isolated in 86 patients (86%) [37 bacteria alone “37%” and 49 mixed bacteria and RSV “49%”], RSV was identified in 56 patients (56%) of middle ear aspirates [mixed with bacteria in 49 patients and RSV alone in 7 cases (7%).

RECOMMENDATIONS

To diagnose AOM, there must be acute onset of symptoms such as otalgia (or nonspecific symptoms in nonverbal children), signs of a middle ear effusion associated with inflammation of the middle ear (ie, a TM that is bulging and,

usually, very erythematous or hemorrhagic, and yellow or cloudy in colour) or a TM that has ruptured. For otherwise healthy children ≥6 months of age who have mild illness with appropriately diagnosed AOM criteria or children who do not fully meet diagnostic criteria, a watchful waiting approach for 48 h is an option if follow-up can be assured. Advice regarding analgesics must be provided. It is recommended to:

reassess the child within 24 h to 48 h to document the clinical course; OR

have the caregiver return if the child does not improve or worsens anytime within 48 h; OR

provide an antimicrobial prescription to be filled if the child does not improve.

Children with a bulging TM who are febrile (≥39°C) and moderately to severely systemically ill, or who have severe otalgia, or who have already been significantly ill for 48 h should be treated with antimicrobials. If a decision is made to treat with antimicrobials, amoxicillin either divided twice per day at a dose of 75 mg/kg/day to 90 mg/kg/day or amoxicillin divided three times per day at a dose of 45 mg/kg/day to 60 mg/kg/day are the first choices for AOM therapy.

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