PULMONARY COMPLICATIONS OF VARICELLA IN HOSPITALIZED CHILDREN.

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Introduction: Varicella is most frequently reported infectious disease in Poland. Although usually mild, due to high figures leads to substantial number of complications, including pulmonary as pneumonia and bronchitis. **Aim:** To determine frequency and course of pulmonary complications in children from the Lower Silesia hospitalized because of varicella from 2005 to 2010. **Material and methods:** A retrospective chart review of 237 children hospitalized with complications in the course of varicella. All the patients were admitted to a single pediatric infectious diseases department in Wroclaw (Department of Pediatrics and Infectious Diseases, Wroclaw Medical University). Children with pulmonary complications (pneumonia, bronchitis or cough) were selected. We analyzed causes of referral to hospital, duration of hospitalization and final diagnosis. The treatments were also investigated. We tried to identify potential risk factors. In calculation 95% confidence intervals (CI) were used. **Results:** There were 28 of 237 children (11.81%; CI: 8.00-16.62%), including 13 females (46.4%), hospitalized with pulmonary complications in analyzed period. The average age of patients was 2.8 years with median of 2 years. Infants aged less than 1 year were predominating (9/28; 32.1%). None of the patients was previously immunized against varicella. Admission occurred 4.9 ± 3.0 days after the first symptoms of varicella. The source of infection in 13/28 cases (46.4%) was the older sibling. The average duration of hospitalization was 5.3 ± 2.0 days. Symptoms of pulmonary involvement occurred in 22/28 children (81.5%) before admission and the other 6 patients developed the symptoms during stay in the hospital. 5/28 patients (17.9%) had accompanying chronic disease such as: atopic dermatitis (3/28; 60%), congenital heart defect (1/28) and juvenile arthritis (1/28). In 9/28 patients (32.1%) risk factors, such as age less than 1 year of life (8/28; 28.6%) and immunosuppressive therapy (1/28) were identified. The main symptoms reported in children suspected of pulmonary complications were: fever (19/28; 67.9%), cough (26/28; 92.9%) and dyspnea (5/28; 17.9%). Chest X-ray was performed in 8 children and confirmed pneumonia in 6 patients. Finally, based on laboratory test, chest x-ray and clinical symptoms, in 11/237 children (4.64%; CI: 2.34-8.15%) pneumonia was diagnosed and bronchitis was diagnosed also in 11/237 cases (4.64%; CI: 2.34-8.15%). Cough without bronchitis or pneumonia was found in 6/237 patients (2.53%; 0.93-5.43%). 5/28 patients (17.86%) had also other bacterial complications and 1 patient had neurological symptoms. Intravenous antiviral therapy with acyclovir was administered in 16/28 patients (57.1%). Antibiotic therapy, most frequently with 3rd generation cephalosporin, was administered in 14/28 patients (50.0%). In 2 cases therapy with oxygen was necessary. One patient presented severe respiratory failure and was transferred to the Intensive Care Unit. **Conclusions:** Varicella probably leads to pulmonary complications in children more often than assumed. The young age (1 year of life) and infection from older siblings seems to be risk factors for pulmonary complications.