Respiratory infections

Hyponatremia in children hospitalized due to RSV infection [1]

[1]*Supported by CMKP grant 501-1-20-19-15*

*A. Wrotek[1], K. Wołoszyn[1], T. Jackowska[1]
[1]CMKP (Warsaw, Poland)

Introduction: Hyponatremia (HN) is related to the severity of bronchiolitis in children hospitalized in the ICU, but there is insufficient data on children hospitalized in pediatric wards. A RSV infection is one the most frequent etiological factors of lower respiratory tract infections, including bronchiolitis, in children under 2 years of age.

Aim: To assess the frequency of HN in children hospitalized in a pediatric ward due to a RSV infection, with special emphasis on the RSV bronchiolitis and its correlation with the severity of the disease.

Materials: 122 children (53 female, 69 male) aged 10 days-18 months (median 2.5 months) were enrolled. Patients were divided into three groups according to the diagnosis (pneumonia, bronchitis, bronchiolitis). The severity of disease was assessed based on the clinical parameters (breath frequency, heart rate, oxygen blood saturation, length of stay-LOS, need for ICU transfer), laboratory parameters (white blood cells count, CRP, carbon dioxide partial pressure), as well as the treatment (need for oxygen, systemic steroids).

Results: Hyponatremia was observed in 19% (23/122) of patients. The HN frequency depended on the site of infection-43% of children with pneumonia (3/7) had HN, 19% with bronchiolitis (20/108) and none with bronchitis. HN correlated with the length of hospital stay (10 vs. 8 days, p=0.016) and with the CRP (1.69 vs. 0.51 mg/L, p=0.03), but the other parameters analyzed remained insignificant.

Conclusion: The HN frequency depends on the site of infection. It correlates with the length of stay and therefore should be analyzed in each child with RSV infection individually.