

studies suggesting that intrauterine VZN infections during pregnancy could also increase the risk for HZ development. Therefore, it is important to identify the times of primer infections especially in healthy children developing HZ and evaluate the children without primer infection history in terms of intrauterine infection.

Vaccination is the most effective way of prevention from VZV infections that have a high rate of infection. Through vaccination, both primer VZV infections and relatedly, HZ incidences will decrease as well. In a previous study, it was found that the HZ incidence in children vaccinated with varicella vaccine was noticeable lower than those without vaccination (4). While there is a dramatic decline in the varicella incidences in countries where varicella vaccines are administered, all attention has been focused on the HZ in VZV infections. Therefore, the national vaccination programs is the most important indicator for the future HZ incidence rates. In Turkey, varicella vaccination was included into the Childhood National Immunization Program in 2013.

In many studies in which acyclovir was administered for the treatment of herpes zoster, it was found that acyclovir was effective in the immunosuppressed and healthy children. However, starting the VZV activation within the first 72 hours is the most important factor in determining the effectiveness of the treatment. Furthermore, it was found that the local antiviral practices in HZ treatments were ineffective and are not recommended (5).

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Serum Sodium Levels in Children with Lung Infections

Dear Editor,

Hyponatremia is a frequent incidence that can be encountered during the course of various diseases inclusive of pneumonias. However, although it is an laboratory test that is inexpensive and easily-evaluated, it has not been used as a marker for the clinical course and prognosis of lung diseases. Therefore, I am of the opinion that the research article titled "Serum Sodium Levels in Children with Lung Infections" written by Yılmaz et al. (1) published in the pages numbered 10 and 13 in the volume 10 of the first edition of your journal in 2016 is a remarkable article in terms of emphasizing the importance of hyponatremia.

It was demonstrated that hyponatremia, the most common electrolyte disorder in hospitalized patients, was the basic mechanism of non-osmotic secretion of ADH in pathogenesis (2-4). Normally, ADH is released in times of rising of blood osmolality and in the presence of hypovolemia. However, while effective volume is normal abnormal situations such as lung diseases, MSS diseases and tumors, it is possible that ADH is incompatible with mechanisms not related to non-osmose or baroreceptors. Another mechanism of hyponatremia in infections and MSS diseases is cerebral salt wasting (2). During the course of some diseases, hyponatremia may confront us with different mechanisms in the same patient. Therefore, the fact that hyponatremia that may seem like a simple electrolyte abnormality, but in fact is complex physiopathology made a contribution to the literature when it was examined and discussed with a large-scale study group in patients with lung infection in the study of Yılmaz et al. (1).

The most important shortcoming of the article is that fact that the urine sodium or osmolality of the patients that were investigated retrospectively were not investigated. While the first step in the evaluation of hyponatremia in order to facilitate the differential diagnosis is osmolality measurement, the following procedures comprise determining urine osmolality or the levels of sodium. Measuring the density of urine sodium especially provides significant information in the differential diagnosis. It is found that while urine sodium is low in the dehydration-related hyponatremia (<15-20 mEq/L), inappropriate antidiuretic hormone release should be considered in cases when urine sodium is greater than 20 mEq/L and the patient is normovolemic (2).

Another important point in the article is that lung diseases were considered as a single group and the sodium levels were compared as pneumonia, bronchitis and bronchiolitis in different groups. Discussing the results by divid-

ing the groups could have provided additional contributions.

In our own study in which we retrospectively investigated hyponatremia in cases with pneumonia in 2013, similar to the study by Yılmaz et al. (1), we demonstrated that there was a negative correlation between the sodium levels and acute phase reactants. Similarly, in their retrospective study in 2011, Anil et al. (4) found a relationship between acute phase reactants and hyponatremia in patients with lower respiratory tract infections. The results support the significance of sodium levels in cases with pneumonia in clinical practice.

The retrospective study of Yılmaz et al. (1) is significant in that it has proved that a simple and easily-accessible laboratory test can be beneficial in the course of lung diseases. Additionally, this study also draws attention to a pathologic situation that can be frequently encountered in the follow-up these diseases. I would like to thank the authors and your journal for this beautiful article.

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Response to the Editor

Dear Editor,

First of all, with regards to the evaluation made concerning our article titled "Serum Sodium Levels in Children with Lung Infections" published in your journal, we would like to thank Dr. H. Nilgün Duru very much.

Although serum sodium levels in children with lung infections, white blood cell and neutrophil counts and C-reactive protein (CRP) levels are tested routinely, check-

ing the plasma and urine osmolality and urine sodium levels has not yet found any ground in the routine patient evaluation. In our study, clinical and laboratory records of children aged 1-15 diagnosed with lower respiratory tract infection were investigated retrospectively and it was observed that there was negative correlation between the serum sodium levels, and CRP levels and white blood cell and neutrophil counts. Although the antidiuretic hormone whose swing increases during the inflammatory processes (ADH) is the main factor to be blamed for the etiopathogenesis of hyponatremia in these types of patients (1), as Dr. H. Nilgün Duru stated, there is a need to further investigate this aspect of the subject with prospective study designs inclusive of some biochemical parameters that are important for the differential diagnosis of hyponatremia.

It was reported in the relevant literature that almost similar rates of hyponatremia could be seen in children with both pneumonia and acute bronchitis (2, 3). Therefore, lower respiratory tract infections (LRTIs) were considered as a whole in our study. Articles that investigated the serum sodium levels in children with both pneumonia (4) and lower respiratory tract infection in general (5) investigating serum were previously published in your journal as well.

In conclusion, although those previous studies concluded that the serum sodium levels in children with lower respiratory tract infection should be monitored closely, it is clear that there is a need for further studies aimed to identify the underlying mechanisms behind the clinical table in question.

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