

## FEATURES OF ARI IN PREGNANT WOMEN

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Acute respiratory infections (ARI) and influenza occupy a leading place in the structure of infectious diseases in Ukraine. With severe and complicated course of ARI and influenza, transient T-cell immunosuppression, a decrease in the functional activity of natural killer cells, phagocytic and metabolic activity of neutrophils of peripheral blood, the development of sensitization of leukocytes to viral and bacterial antibodies occur. This largely determines the possibility of bacterial complications, exacerbations of chronic comorbidities, a prolonged course of infection and persistence of respiratory viruses. Pregnant women, due to the development of physiological immunosuppression in them, are at increased risk.

The purpose of the study is to establish the features of clinical and laboratory manifestations of acute respiratory infections in pregnant women, the possibility of etiological verification of the diagnosis and differentiation of acute respiratory infections of viral and bacterial etiology at the prehospital and hospital stages.

**Material and methods.** Clinical material was developed based on an analysis of 54 histories of pregnant women who were treated at an infectious diseases hospital in 2016–2018, magazines of the receiving department of the Kharkiv OKIB and referrals for hospitalization of patients with ARI. The examination was carried out in accordance with the clinical protocols for the provision of inpatient care to infectious patients, approved by the Ministry of Health of Ukraine, including the mandatory examination of the pregnant patient by an obstetrician-gynecologist in the hospital.

**Results.** The average age of the observed 54 pregnant women was 23.3 +/- 0.67 years. Pregnancy periods: the first trimester in 16 (30.5%), the second in 29 (52%), the third in 9 (17.5%). In 38 (70.37%) hospitalized women, pregnancy was the first, in 11 (20.37%) - the second, in 4 (7.4%) - the third, and in 1 (1.85%) - the fifth. Patients were admitted during the seasonal increase in the incidence of acute respiratory infections. In the first 1-2 days, 44 pregnant women (81.48%) were received. With the diagnosis of acute respiratory viral infection, 37 patients (68.52%) were sent, ARI - 16 (29.63%), influenza - 1. Duty doctors of the emergency department guided the diagnosis slightly, mainly in terms of clarifying nosology, presence of concomitant pathology and complications arising. SARS was diagnosed in 37 (68.52%) women, ARI - in 10 (18.52%), adenovirus infection - in 3 (5.55%), parainfluenza - 1, influenza-3 (5.55%). Concomitant pathology was detected in 7 women (12.9%), the presence of complications in 8 (14%): acute bronchitis in 6 patients, pneumonia - in 1, exacerbation of chronic pyelonephritis - in 1.

Thus, at the prehospital stage, such as ARVI and ARI prevailed among the diagnoses in the direction. Attention should be paid to the incomplete detection of concomitant somatic pathology and complications that have arisen. The nosological interpretation of diseases

belonging to the ARI group is rather complicated both at the outpatient stage and at the stage of the emergency department of the infectious diseases hospital, and it requires specific laboratory tests.

All patients noted an acute onset of the disease accompanied by intoxication syndrome and fever. The nature of the temperature reaction was not the same: subfebrile was observed in 7 (12.96%) patients, febrile body temperature - in 47 (87.04%). The duration of the febrile period ranged from 2 to 7 days, an average of 2.8 days. Upon admission, 92% of patients complained of general malaise, headache 66.6%, sore throat when swallowing 49%, nasal congestion 80.6%, followed by rhinorrhea for 2-3 days in hospital for 76.8% of cases. 79.6% of patients indicated the presence of dry cough, a feeling of heaviness and discomfort behind the sternum - 7.4%. Arthralgia occurred in 11.1% of pregnant women, myalgia in 8.3%, and pain in the movement of the eyeballs in 4.7% of cases. An objective examination revealed hyperemia and puffiness of the face in 31.5% of patients, conjunctivitis - 7.4%, hyperemia of the mucous membranes of the pharynx - 96.3%, presence of sore throat syndrome - 14.8%, lymphadenopathy - 9.2% of patients. An increase in palpation of the liver during short periods of pregnancy was not detected.

During the laboratory examination of patients, the number of leukocytes in the peripheral blood was  $8.2 \pm 0.56 \cdot 10^9 / l$ , band-core -  $7.4 \pm 0.89\%$ , eosinophils -  $0.87 \pm 0.12\%$ , segment-nucleus  $69.2 \pm 2.33\%$ , lymphocytes -  $16.7 \pm 1.81\%$ , monocytes  $3.0 \pm 0.47\%$ . ESR of  $27.5 \pm 2.58$  mm / h. Leukocytosis occurred in 22.5% of cases, an increase in ESR in 94.5%. In the general analysis of urine - leukocyturia - in 16.7%, squamous epithelial cells - in 40.7%, and in 24.1% of patients erythrocytes were detected in the urine in insignificant amounts.

In the study of mucus from the nasopharynx by the immunofluorescence method, conducted in 48 patients (88.9% of patients), adenovirus antigens were detected in 11 patients (20.4%), PC -viruses in 15 people (27.8%), influenza A - in 7 (13%), influenza B - in 4 (7.4%), parainfluenza - 3 (5.6%), PC infection proceeded as an alternative infection, combined with influenza B (2 cases) and in 6 cases (11.1%) as an independent nosological form.

Thus, the viral etiology of ARI and etiological verification of the diagnosis during the immunofluorescence examination were confirmed in 49 pregnant women (90.8%), 5 people were not examined.

Diagnoses at discharge were distributed as follows: adenovirus infection - in 11 (20.4%) pregnant women, PC infection - in 15 (27.8%) patients, the diagnosis of influenza A was set in 7 (13%) people, influenza B - in 4 (7.4%), parainfluenza - in 3 (5.6%). The diagnosis of SARS mixed infection (PC infection plus influenza B) was established in 2 (3.7%) patients. An independent PC infection was established in 6 (11.1%)

patients. The diagnosis of ARVI (laboratory unconfirmed) was established in 5 (9.3%) cases. In 52 (96.3%) pregnant women, the disease was in moderate form, in 2 cases - in severe. Complications in the form of focal pneumonia were observed in 4 (7.4%) women diagnosed with SARS mixed. Concomitant pathology was detected in 17 (31.5%) observed patients: mild anemia in 6, mitral valve prolapse in 1, calculous cholecystitis in 2, chronic pyelonephritis in 4, cervical erosion in 3, ovarian cyst in 1 patient. The length of hospital stay was  $7.28 \pm 0.84$  days.

**Conclusion** In pregnant women, acute respiratory infections in moderate form and only in 2 cases complicated by non-hospital lower-lobe pneumonia (in 1 case left-handed in another right-sided), the disease progressed. Differential diagnosis of acute respiratory infections is quite complicated both at the prehospital and hospital stages. At the prehospital stage there is an insufficient diagnosis of the existing somatic pathology. Examination of pregnant women admitted to hospital with ARI and ARVI, using only one fluorescence method, allowed to etiologically verify the diagnosis in more than 90% of patients.