THE IMPACT OF INTRAUTERINE INFECTIOUS FACTORS ON THE SEVERITY AND DYNAMICS OF AUTISTIC MANIFESTATIONS IN CHILDREN

Khusenova N.T.
Tashkent State Medical University

The prevalence of Autism Spectrum Disorder (ASD) is steadily increasing and is estimated to range from 1 in 36 to 1 in 100 children. In addition to genetic mechanisms, growing significance is attributed to adverse antenatal factors, including intrauterine infections. However, the impact of intrauterine infectious factors on the severity and clinical characteristics of autistic manifestations remains insufficiently studied.

Objective of the study: to assess the impact of intrauterine infectious factors on the severity and clinical characteristics of Autism Spectrum Disorder manifestations in children.

Materials and methods: a total of 120 children aged 2–6 years (mean age: 3.8 ± 0.4 years) with a confirmed diagnosis of ASD were examined. The severity of autistic manifestations was assessed using the Childhood Autism Rating Scale-2 (CARS-2) (scores ≥37 indicating severe forms).

To verify intrauterine infection, DNA/RNA determination of TORCH complex pathogens was performed in saliva using PCR. The following groups were formed: main group (n=75) — children with ASD and TORCH-induced encephalopathy; comparison group (n=45) — children with idiopathic ASD; control group (n=25) — healthy children.

Results of the study. In the infectious factor structure, herpesviruses predominated: Epstein-Barr virus - 74.5%, cytomegalovirus - 68.6%, herpes simplex virus type 6 - 55.4%, and herpesvirus infection - 12.3%, indicating their leading role in the development of neurodevelopmental disorders. It was found that severe forms of ASD

(CARS-2 ≥37) were significantly more common in the main group — 68.0% compared to 31.1% in the comparison group ($\chi^2 = 7.68$; $p = 0.006$). The average score on the CARS-2 scale was 38.9 ± 2.1 in the main group and 33.6 ± 1.9 in the idiopathic ASD group ($p<0.001$), indicating greater severity of clinical manifestations. Clinical features of TORCH-associated ASD were characterized by earlier manifestation of symptoms (before 18 months — 62.7% vs. 31.1%) and a high frequency of regression of previously acquired skills (52.0% vs. 26.7%). Impaired social interaction (74.7% vs. 62.2%), joint attention deficits (65.3% vs. 48.9%), and delayed speech development as the debut symptom (77.3% vs. 60.0%) were also more frequently observed in the main group.

Conclusion. Intrauterine infectious factors have a significant impact on the development and exacerbation of the clinical picture of ASD, contributing to earlier manifestation, a high frequency of regression, and an increased incidence of severe forms of the disorder.