1. AUTISM SPECTRUM DISORDER - A COMPREHENSIVE LITERARY REVIEW

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Introduction. Autism spectrum disorder (ASD) can be identified from other neurodevelopmental disorders by its distinctive combination of symptoms: difficulties in social interaction and communication, repetitive, stereotyped, and restricted behavior. According to the data provided by the World Health Organization, the worldwide prevalence of ASD is 1:100, while as per Centers for Disease Control and Prevention (CDC), in the USA (2020) 1 in 36 children were diagnosed with autism, in comparison with 2000 when the ratio was 1:150.

Aim of study. To elucidate the main key findings within the literature on autism spectrum disorder.

Methods and materials. To accomplish the proposed goal, research was performed on scientific and medical databases as HINARI, PubMed, Elsevier. Using the following keywords: “autism spectrum disorder”, “etiology”, “prevalence”, “early prevention” – 14 articles were selected.

Results. 1 to 2 percent of the overall population is diagnosed with autism, more commonly in men than in women (ratio 4:1). In ASD “spectrum” emphasizes the broad array of symptoms, the severity and which degree these symptoms manifest in each individual. The complexity of this disease can be explained by its heterogeneous origins. Several family studies have demonstrated that ASD is a highly heritable disorder, with heritability estimates ranging from 40% to 90%, underscoring the influence of genetic factors. Nevertheless, genetic alterations have been detected in only 20-30% of cases. This prompted an exploration of the impact of environmental factors, including drugs, maternal and paternal age, and neonatal hypoxia. These studies revealed that up to 40-50% of the variation in autism susceptibility could be attributed to these variables, and still not all cases of autism can be explained. Hence, an increasing number of studies are centered on exploring the interplay between genetics and the environment, or more precisely, how our surroundings and behavior impact the functioning of our genes—commonly referred to as epigenetics. These factors engage with each other in the prenatal and postnatal period, altering the development of the central nervous system and determining the appearance of the autistic phenotype. The diagnosis can be confirmed by the age of 2, prompting international recommendations to begin screening at 18 months.

Conclusion. Since the discovery of ASD, numerous studies have significantly advanced our understanding of the condition, revealing its multifactorial nature. Autism is a lifelong developmental disease for which there is no cure. Therefore, early intervention and diagnosis play a crucial role in influencing the quality of life for individuals with ASD.