



## STUDY OF THE EFFECT OF MEMORY DISEASE ON IMMUNOPROPHYLAXIS ON DISEASE EPIDEMIOLOGICAL CHARACTERISTICS

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**ABSTRACT:** Prior to the introduction of measles vaccination programs, measles was almost common among children. With the introduction of measles vaccination and the increase in vaccine coverage, the incidence of the disease decreased during the peak years of the epidemic, and the re-registration period of the epidemic increased. Achieving very high levels of immunity against measles in the population has led to the loss of measles in many countries, but if this level of immunity is not maintained, a recurrent epidemic of measles may re-emerge.

**Key words:** measles, immunity, periodic epidemic process.

### Introduction

Despite several years of vaccination in the study of the history of measles vaccination, measles remains a major health care problem not only in developing countries but also in a number of developed countries. Measles is one of the main indicators of the incidence of infectious diseases in the population. According to the WHO, 38 million people are infected with measles each year, and about 800,000 children die from the disease.

Measles has been an integral part of human society throughout its history. It is widespread everywhere, in all regions, in all climatic zones. The epidemic process of measles is characterized by high morbidity and mortality. Complications of the disease and high mortality rates can cause serious economic and material damage [12].

There are groups that show a weak reaction to the measles vaccine when vaccinated against measles, which is 5-10% of the total vaccine, and a weak response to the immunobiological agent was found [14]. This process depends on many factors, the main of which are the genetic characteristics of the organism, genetics, as well as the intensity and quality of the immune response, which in turn affects the duration and quality of population immunity, phenotypic features acquired during life [17].

The formation of collective immunity among the population against measles occurs at the expense of those who have recovered from the disease and those who have been vaccinated. Vaccination of those prone to measles limits the spread of the disease among the population. All the rules of vaccination, if implemented in a timely manner, ensure the development of long-term immunity after vaccination [13].

The quality of vaccine preparation and the correct system of their use will lead to a higher efficiency in the control of measles [14, 17, 20, 21,22].

#### **Main part**

The existence of a single antigenic variant of the measles virus worldwide, the absence of a human source of measles virus in nature, adequate data on the clinical course of the disease, and the development of effective live vaccines play an important role in the formation of lifelong immunity to measles [3 , 16, 18]. From the first years of mass vaccination against measles, a high epidemiological and immunological effect of this measure was noted, which was manifested primarily by a decrease in morbidity and mortality.

The coverage of more than 90% of the population in the early stages of measles vaccination has served as a basis for optimistic predictions for the complete eradication of measles, but expectations have not been met and an outbreak of measles has been observed 4 years after mass vaccinations. This situation is reflected in the establishment of medical restrictions among children in the implementation of mass vaccinations among children, the quality of vaccine preparation (non-standard series, quantity of vaccines, lack of stabilizers, packaging of multi-dose vaccines, non-compliance with temperature during transport and storage of vaccines). found. Problems with vaccination in children under one year of age and the quality of live measles vaccines have led to “primary vaccine failures” [5, 26].

Despite the availability and widespread use of highly immunogenic vaccines worldwide, measles is still one of the leading causes of infant mortality in developing countries and the development of measles epidemic strategies in developed countries, with the primary goal of preventing measles on a global scale. a reduction in mortality was determined [23, 24, 25, 26].

#### **Conclusion**

In short, the organization of measles vaccination among the population and the liquidation of the epidemic process of measles should accurately describe the qualitative and quantitative state of the epidemic process, the state of immunological indicators in the pre-measles period and at different stages of vaccination. The study of information indicators of the epidemic process of the disease, which serves as a criterion for the elimination of measles, the correct assessment of the main parameters of the epidemic process in the period of measles liquidation, identification of measles outbreaks play an important role in improving the epidemiological process.

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