



thus disrupting their further maturation, that result in significant decrease in ability of these DCs to present Ags. One of the most significant immunosuppressive agent which is synthesized by a malignancy is vascular endothelial growth factor that suppresses DC phagocytosis. Exosomes released from malignant cells are able to reduce both the activity and the number of DCs by suppression the differentiation of CD14<sup>+</sup> monocytes into immature DCs. In this case CD14<sup>+</sup> cells differentiate into another cells that produce the transforming growth factor beta inhibiting T cell functions.

Conclusions. DCs are one of the most important part of the antitumor response. Knowledge about mechanisms of DCs functioning is necessary to understand how the immune system fights tumor-transformed cells and where we can support this process. However, many tumor types are associated with the suppression of the DCs leading to a weakening of both innate and specific immunity. Considering this, one of the most significant therapeutic strategy in cancer treatment might be the immunotherapy aimed at activating the functioning of DCs. DC-based antitumor vaccines development could be an valid way to rise the efficiency of tumor Ag-presentation.

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## **CONGENITAL ATRESIA OF THE DIGESTIVE SYSTEM**

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Introduction. The digestive system plays an important role in human life. Defects of the development of the digestive tube can be classified according the departments of the gastrointestinal tract: defects of esophagus, stomach, small and large intestine.

Incidence. According to statistics, malformations of the digestive tube range from 21.7% to 25% of all birth defects and associated with severe conditions of infants, and rank third in the world. The number of fatal cases ranges from 25% to 57%.

In this work will look at the atresia of the digestive system, in accordance with the departments of gastrointestinal tract. Esophageal atresia is a very common defect that



occurs in 1 per 2500 to 1 per 5000 newborns and is manifested by organ dysplasia. There are 5 forms of esophageal atresia, one of which is exclusively isolated, four associated with the tracheoesophageal fistula (proximal, distal, double, and combination of isolated form with fistula). For surgical treatment, atresia is divided into three Waterston classes, depending on the child's weight. The success rate of surgical treatment depends on it, namely from 71% to 99%.

Defects of the next section - stomach - prepyloric atresia and atresia of the pylorus. Prepyloric atresia and atresia of the pylorus are quite rare, approximately in 1 in 100,000 newborns, and are characterized by the presence of a membrane located in the corresponding sections of the stomach.

Defects of the small intestine. We begin with atresia and stenosis of the duodenum, which occur at a frequency of 1 per 5000 to 1 per 10,000. There are two types of atresia: membranous, in which the lumen of the duodenum is obstructed by the membrane, and stenosing, when the diameter of the intestine is reduced to inability to see the lumen. Atresias and stenoses in the upper part occur due to impaired recanalization of the intestine, and in the lower - due to compression of the vessels.

Defects in the development of the hindgut can be expressed as anorectal atresia. Anorectal atresia meets with an average frequency of 1 per 5 000. There are four types of this defect:

I. Stenosis of the anus or "microscopic anus" is a pathology in which the lumen of the anal opening is closed by a membrane above the sphincter, in the center of which is a very small hole.

II. Atresia of the anal opening, in which the entire diameter is closed by the membrane.

III. Atresia of the rectum and anus is the most severe form, when anus ends in a "blind pouch" a few centimeters above the anal opening.

IV. Atresia of the rectum is the least common form of the disease. The anus and sphincters develop normally, as does the inferior rectum, the upper segment of which, however, ends at a blind end.

All forms can be combined with rectal fistula, which are thin canals covered with epithelial tissue, beginning from the rectum wall and ending with holes in the skin.



Conclusions. All of the above atresia of the digestive tube develop in the embryonic period and pose a real threat to the life of a newborn baby. We analyzed the incidence of defects and concluded that atresias of the gastrointestinal tract are very common, so understanding the causes, mechanisms and timing of their occurrence is important for choosing the right tactics for the prevention and treatment of these defects.

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## **MONITORING OF THE BOTULISM SICKNESS RATE IN UKRAINE**

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Relevance. In Ukraine, the incidence of botulism has increased in recent years. Mortality from this disease has a similar trend. The process of forming the incidence of botulism depends on a large extent on the spread and high resistance of *C.botulinum* spores in the environment, which determines the methods of prevention. Even timely and properly organized treatment is not always effective, as evidenced by fatality. Therefore, the purpose of our study was to monitor the incidences of botulism in Ukraine for 2016-2019.

Research materials and methods. In the course of the work, a comparative analysis of cases of botulism among the population of Ukraine for the period from 2016 to 2019 was carried out. The methods of statistical and comparative analysis of the investigation and logical interpretation of the obtained results were used in a comprehensive manner. The information sources were data of the electronic system of accounting for the incidences of botulism of the Ministry of Health of Ukraine.

Results of researches. In 2016, 96 cases of food poisoning were reported in Ukraine, caused by botulism with 119 victims, including 10 children. 12 people died (every 10th). Diseases related to consumption: canned meat and other meat products - 57 sick; dried, smoked and preserved fish are registered in 50 cases, preserved vegetables in - 6, unknown product in - 2.