opportunistic microorganisms was recorded. In Tashkent, in children with acute intestinal infections, the frequency of occurrence of these microorganisms in absolute and relative terms was significantly higher than in patients in the comparison group from Bukhara. The only exceptions were representatives of opportunistic flora, which were not recorded in sick children with acute intestinal infections in Tashkent.

The frequency of occurrence of representatives of Salmonella and Shigella in the feces of children with acute intestinal infections in the city of Tashkent was 3-5 times higher, respectively, compared with similar indicators in children suffering from acute intestinal infections in the city of Bukhara. Rotavirus infection in patients with AII occurred with a frequency of 35.4% in Tashkent and with a frequency of 29.6% in children with AII in Bukhara. This pattern of occurrence of rotavirus infection in children occurred over 3 seasons (winter-spring-summer) throughout the year. And only during the autumn the relative incidence of rotavirus infection in children in the city of Bukhara sharply increased than in the city of Tashkent.

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THE ORIGINS OF ALLERGIES AS A DISEASE IN DEVELOPED COUNTRIES

Tishchenko I.[1], Filimonova N.[1], Dubinina N.[1], Misiurova S.[1], Peretyatko O.[2]
[1]National University of Pharmacy, Kharkiv, Ukraine
[2]State Organization "Mechnikov Institute of Microbiology and Immunology", Kharkiv, Ukraine
irina2okt@gmail.com

Currently, allergies are one of the most common pathologies that are rapidly spreading throughout the world. It is known that in the modern world more than 1/5 of the population suffers from allergic diseases. There are many theories explaining the reasons for the development of allergic conditions, and one of them is the "old friends theory". It explains such a surge in allergic diseases in recent years by the culture of hygiene and a changed way of life.Epidemiologist David Strachan first formulated the concept of the influence of hygiene on the development of allergic and autoimmune diseases in 1989, which was then expanded and became known as the old friends theory.

According to this concept, an important role in setting up our immunity is played by the so-called old friends - microorganisms, viruses and parasites that have low pathogenicity and have long coexisted with humanity. The entire history of mankind is connected with these organisms, but thanks to medical advances, by the end of the 20th century there were significantly fewer fatal contacts. In immunology, this period is called the second epidemiological transition: the widespread use of antibiotics and disinfectants led to a decrease in the prevalence of infections, and epidemics became rare. Microorganisms help a person resist allergens, acting as training antigens for the immune system and setting up the work of its components from early childhood, and limiting contact with them has caused an increase in the frequency of secular diseases, as allergies and autoimmune diseases were previously called.

In the human body, mechanisms that fight pathological microorganisms are also responsible for the development of allergic reactions. Improved living conditions and higher standards of personal hygiene have led not only to an increase in life expectancy and an improvement in its quality, but also to a decrease in the number of pathogens with which a person comes into contact every day. Moreover, to set up and develop the regulatory mechanisms of immunity, external stimuli are needed: bacteria, viruses, helminthes, and parasites. When these old friends become fewer, the immune system has a hard time learning. As a result, it begins to perceive simple substances: food, animal fur and pollen as pathogens. The better the sanitary conditions, the higher the risk of developing an allergic disease, which is why allergies are much more common in developed countries.

Since the turn of the millennium, researchers have confirmed that exposure to small amounts of “dirt” (from siblings, living on a farm or in a developing country) can be beneficial and even prevent some diseases. For example, in 2015, a ten-year follow-up study found a significant reduction in the risk of developing asthma in children growing up with dogs. The researchers analyzed data from more than a million children born in Sweden between 2001 and 2010. In a study of 275,000 school-aged children in this group, the researchers found that children who had a dog in their household had a 13% lower risk of developing asthma than their peers who did not have a pet. The idea that pets can diversify the microbiome makes even more sense when viewed as a refinement of the “hygiene theory.” From this perspective, the coevolution of humans with domestic and wild animals has promoted the evolution of the microbiome to maintain health and enhance survival. Losing contact with “old friends” can upset the delicate evolutionary balance. Researchers believe that our long-term interaction with dogs has led to the fact that the microbiomes of humans and dogs began to develop in tandem.

The microbiome of a child growing up without a dog (like a puppy growing up without a person) is in some sense inferior. “It's likely that all living humans had ancestors who lived in tribes that hunted with dogs,” says Jack Gilbert, director of the Microbiome Center at the University of Chicago, Illinois.However, today it has been proven that the development of allergic reactions is associated not only with external microorganisms, but also to a large extent with the human microflora. Children born

by cesarean section have a high risk of developing allergic diseases due to lack of contact with the mother's vaginal microflora and disruption of the formation of natural microbial colonization of the child's body. Intestinal microflora takes part in the formation of the immune response and adjusts the immune system, while reducing the risk of developing food allergies, increasing tolerance to food allergens and synthesizing a secretion that covers the mucous membrane and does not allow antigens to penetrate into the bloodstream through the intestinal wall. It also neutralizes pathogens living in the intestines.

Due to disturbances in the composition of the gastrointestinal microflora, the secretion of immunoglobulins A (IgA), which normally prevents the attachment of antigens to the mucous membrane of the digestive canal, decreases, and the permeability of the intestinal wall for macromolecules increases, which provokes the development of allergies. The human body is colonized by a huge variety of bacteria; their number is 10 times greater than the number of human cells.

The microflora of each person has a unique composition, and different diseases are characterized by a deficiency or surplus of certain microorganisms. It has been studied that children suffering from bronchial asthma in combination with allergic rhinitis are characterized by a deficiency of both Bifidobacterium and Lactobacillus. The connection between allergies and bacteria of the genus Clostridium has also been studied. Clostridia regulate the function of immune cells and the permeability of the intestinal wall, which prevents the development of sensitization to allergens.

Most other theories link the increase in the number of allergic diseases to external causes that increase a person's risk of developing allergies (environmental pollution, preservatives in food, cosmetics, and cleaning products, stress). Changes in microflora contribute to metabolic disorders, immune response and susceptibility to disease. The etiopathogenesis of allergies is inextricably linked with the cumulative influence of both external factors and changes and characteristics of the internal microflora of a person.

PARENTERAL VIRAL HEPATITIS: STAGES OF IMPROVING METHODS FOR DETERMINING MAIN MARKERS OF INFECTION

Tishchenko I.[1], Dubinina N.[1], Filimonova N.[1], Koshova O.[1], Samadov B.[2]
[1]National University of Pharmacy, Kharkiv, Ukraine
[2]Bukhara State Medical Institute named after Abu Ali ibn Sino, Bukhara, Uzbekistan[2]
irina2okt@gmail.com

The development and implementation of new laboratory diagnostic methods determine progress in the research and prevention of most infectious diseases, including viral hepatitis. The use of immunochemical methods for the detection of antigens and antibodies (gel precipitation reaction) made it possible to identify the “Australian antigen” (HBsAg), the main marker of the hepatitis B virus (B. Blumberg,