

EPIDEMIOLOGICAL CLINICAL AND LABORATORY CHARACTERISTICS OF SALMONELLOSIS

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Introduction. Among acute infectious lesions of the digestive system such diseases as salmonellosis and food poisoning occupy a large portion. Nowadays salmonellosis is one of the most common antropozoonosis in developed countries. Morbidity tends to increase, especially in large cities with centralized food supply. Important role belongs to social factors relevant for Ukraine - expanding catering, violation of technology of preparation and storage of food products, non-compliance with personal hygiene, poor sanitary culture among certain population groups. Salmonella, introduced in the body, in some cases, cause poisoning, in others – generalized infection. Bacteria carrying is diagnosed by bacteriological and serological studies in the absence of clinical symptoms.

There are several variants for salmonella carrying – acute or convalescent, chronic and transient bacterial excretion.

Aim. Provide comparative characteristic of methods of salmonellosis laboratory diagnosis.

Materials and methods. Analysis of scientific literature and the results of advanced research in medicine and pharmacology.

Results and discussion. Laboratory diagnosis is critical in the diagnosis of salmonella, especially in sporadic cases. Bacteriological study involve patient's stool, vomiting, gastric washings, blood, urine, bile, remains of suspicious products, in some cases, punctate material form abscesses, cerebral spinal fluid. Material sampling should be performed at the early stages and before etiotropic treatment.

Test for Salmonella antigen CITO TEST Salmonella (Pharmasco), immunoassay method for detection of Salmonella pathogens (S. Typhi, S. Typhimurium, S. Enteritidis) in human stool samples, is highly sensitive test that allows fast diagnosis. Serological methods include agglutination assay and indirect hemagglutination and special reaction of determination of antigens in biological fluids. Diagnostic increase of antibody titer is 4 times or more. Indirect hemagglutination is more sensitive and provides positive results an average after

the 5th day of disease.

In recent years, in order to diagnose infectious diseases so-called rapid tests for etiologic determination are used. They are quite easy to use diagnostic kits that allow us to obtain results within 5-10 minutes. They are an alternative to classical diagnostic test systems use. These tests become important in case of necessity to obtain quick and inexpensive result.

During testing Salmonella antigens contained in a sample of clinical material interact with red latex microspheres which were previously deposited and dried on test membrane.

Then mixture migrates along the membrane by capillary forces. In case of a positive result the specific antibodies in the test region of the membrane capture the complex conjugate antigen, forming a sandwich: AG-conjugate fixed antibodies which turns test line in red.

The mixture continues to move forward in the direction of the control line, where excess monoclonal antibodies to Salmonella interact with secondary antibodies, staining line in green.

The presence of a control line confirms that sufficient volume is added and membrane capillaries are filled as well as it is internal quality control for reagents. In the absence of Salmonella in a sample of clinical material conjugate antibody binds only to the control line, forming only one green line.

Conclusions. Salmonellosis, especially in spreading epidemic, has great economic loss, can trigger the emergence or worsening of chronic diseases, and in severe cases – lead to the patient death. Prevention: veterinary and sanitary supervision of slaughter cattle, monitoring of preparation and storage of meat, dairy products and eggs. Convalescents are to be discharged from the hospital after full clinical recovery and double bacteriological study of feces with negative results.