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INDIRECT IMMUNOFLUORESCENT ANTIBODY ASSAY FOR BARTONELLOSIS DIAGNOSTIC

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Bartonellahenselae the causative agent of cat scratch disease (CSD) can cause a broad spectrum of syndromes in HIV-infected individuals, including: bacillary angiomatosis, peliosishepatis, osteomyelitis, unexplained fever, bacteremia, endocarditis etc. Diagnosis of bartonellosis is a difficult enough and differentiated with Kaposi sarcoma, other tumors and infections, and is based on comparison of clinical picture and results of histological examination of biopsy material.

Aim of the work: development of the test system for laboratory diagnostic of bartonellosis due to indirect immunofluorescent antibody (IFA) assay by determination of anti-bartonellosis antibodies level in a blood serum.

Results. On the I phase of investigation patients with typical picture of CSD were selected by epidemiology and clinical criteria (presence of previous «traumatic» contact with a cat; presence of scratches or bites and of primary affect in 1-3 weeks after «traumatic» contact; development of regional lymphadenopathy in 1-6 weeks after cat scratch; moderate painfulness of the attracted lymphatic nodes; protracted maintenance of lymphadenitis; moderate intoxication). From selected patients 7 strains of *Bartonella* spp. were obtained due to bacteriological methods. On the II phase strain-producer of bartonellosis antigens (JHMI3 06u054) was selected, as a result of “produceability” and level of specific antigen activity study of the selected strains-candidates of *B. henselae* and comparing to the reference strain of *B. henselae* CCUG 30454 (University of Göteborg, Sweden). On the III phase experimental approbation of IFA was conducted on 24 types of diagnostic homology and heterologous to *B. henselae* antiserum and immunoglobulins and on 14 blood serum samples from patients on CSD and 40 blood serum samples from donors.

Conclusions. Developed indirect antibody IFA for bartonellosis diagnostic provides sensitiveness level – $(0,2 \pm 0,03)$ mg anti *Bartonella* Ig/ml, (91 ± 4) % specificity and (95 ± 5) % reproduction of test.