DEVELOPMENT OF PROTOCOL DETECTION OF PATHOGENIC LEPTOSPIRA WITH THE HELP OF PCR METHOD.

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Leptospira, leptospirosis, polymerase chain reaction amplification protocol optimization.

Paper shows the creation of the PCR detection protocol of genetic material of pathogenic leptospira. It is established that primer system Lip L 32 shows a strong hybridi-zation activity against DNA templateat 55º C.The protocol which is based on primer system Lip L 32 ensuresthe detection of eight serogroups of pathogenic leptospira that are most common in Ukraine: Australis, Canicola, Grippotyphosa, Hebdomadis, Icterohaemorrhagiae, Pomona, Sejroe, Tarassovi. Experimentally proved that the created primers do not form amplicons with DNA template of mycoplasma, chlamydia and saprophytic (non-pathogenic) leptospira.Paper develops a PCR protocol detecting genetic material of pathogenic leptospira. It was established that the primer system LipL 32 shows a pronounced hybridization activity against DNA template at 55ºS. The protocol is based on primer system LipL 32, provided the detection of pathogenic leptospira serogroup eight most common in Ukraine: Australis, Canicola, Grippotiphosae, Hebdomadis, Icterohaemorrhagiae, Pomona, Sejroe, Tarassovi. Found that created primers do not form amplicon DNA template with mycoplasma, chlamydia and saprophytic (nonpathogenic) leptospira.

Leptospirosis - a zooantroponoznyh natural focal infection, which is characterized by transient fever, symptoms of anemia, jaundice color, necrosis of the mucous membranes and skin, bloody urine, atony of the gastrointestinal tract and emaciation animal birth abortion and non-viable offspring [1].

Despite the considerable genetic diversity among pathogenic leptospira, clinical signs of disease caused by these bacteria, similar and range from mild course (mostly asymptomatic chronic infection) to severe forms - a potentially deadly infection [2]. In the world there is at least 0.5 million. Human cases per year, and the mortality rate of leptospirosis in humans ranges from 5% to 15% [3].