

An Innovative Method For Prevention Of Episodic Emergencies - Testing Of A New Allergic Method For The Diagnostic Of Animal Brucellosis

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Annotation.

This article provides information on the research conducted in the conditions of Uzbekistan on allergy diagnostics, which is one of the new innovative methods for diagnosing brucellosis in small cattle, in particular, materials are given on the development of the production of allergens from brucella stored in a unique collection of animal microorganisms Veterinary Scientific Research Institute.

Key words:

Introduction: In the implementation of economic reforms in our republic today, it is considered urgent to use innovative approaches to quick detection, effective treatment and prevention of diseases among animals. It is known that the scientific bases of detection, treatment and prevention of almost all diseases found among animals have been developed by the scientists of our republic and abroad and are widely used in practice. However, according to existing principles, the fight against diseases is approached from a nosological point of view, that is, from the point of view of studying each disease separately. Due to such a separate approach to infectious, invasive, non-infectious and other diseases, the ongoing process is studied one-sidedly and the possibility of a comprehensive evaluation of it is limited. Today, as in all fields, the time demands an innovative approach in the implementation of diagnostic and treatment, preventive measures in veterinary medicine.

The basis of the fight against brucellosis of agricultural animals in our republic is organizational-economic and veterinary-sanitary measures, which consist of the introduction of the infection into the farm, timely diagnosis and identification of the disease, elimination of the causative agent from the external environment, creation of optimal sanitary-hygienic conditions for feeding and keeping animals. constitutes a system.

For this purpose, currently, detection of brucellosis in Uzbekistan and throughout the world is done by the following serological methods: PBS (Pink Bengal test), AR (agglutination reaction), KBR (compliment binding reaction), KUBR (compliment long binding reaction), XR (ring reaction in milk) , along with IFT (enzyme immunoassay), PCR (polymerase chain reaction), allergic diagnosis is recommended. These methods are recommended by FAO/OIE (World Organization for the Protection of Animal Health) in the diagnosis of brucellosis (Terrestrial Animal Health Codex, 2013).

A lot of research has been done around the world on the creation and use of allergens and many allergens have been created. One of the most notable of these is the VIEV brucelli, created in 1968 by E.S.Orlov and A.N.Kasyanov. This allergen is currently used in the diagnosis of brucellosis in sheep, goats, pigs and deer.

It is known that the allergic condition of a sick animal appears after the formation of special antibodies in the body and is maintained for a long time, i.e. up to 16 months (P.P. Samoylov, 1958). Although there are works on the preparation of allergen for the diagnosis of brucellosis in the literature and methodical guidelines for

its use in necessary cases, this issue is still relevant and promising. In Uzbekistan, allergic diagnosis is included in comprehensive health care measures for brucellosis of sheep and goats and pigs.

However, due to the lack of production of these allergens and the lack of commercial allergens, allergy tests are not conducted in the republic. Based on this, the development and improvement of an allergen against animal brucellosis is a very urgent task for scientific research and practical veterinary activity.

The purpose of the research is to conduct a comparative test in laboratory conditions of experimental allergens prepared from localized *Brucella* pathogens stored in the brucellosis laboratory of the institute.

Material and methods. In order to prepare experimental series of allergy diagnostic tools, experimental series of allergens from brucellosis pathogens were prepared in two ways.

Research results. Harmlessness of pathogens under study and in order to check allergic properties, suspensions were prepared from all cultures and examined microscopically by Kozlovsky's method. Microbial cell density and rN were checked based on Tarasevich's turbidity optical standard. When a decrease in pH was observed in the suspension, the etchant was alkalized with a sterile solution of 4% sodium chloride until the pH reached 7.5.

In order to test the harmlessness of allergens in laboratory animals, the *Brucella* in the studies were tested on white mice and guinea pigs, and the shoulder of white mice was injected subcutaneously with 0.25 ml of suspension for 10 days, and the right shoulder of guinea pigs was injected subcutaneously with 1 ml of suspension for 25 days. During this time, no physiological changes were observed in white mice and guinea pigs, and the areactogenicity of these *Brucella* was confirmed, and it was confirmed that they met the criteria required for the diagnosis of brucellosis.

Each culture was centrifuged, the resulting concentrates were filtered in sterile containers, and experimental allergen series were prepared.

In order to study the reactogenicity and antigenic properties of this experimental allergen series, each allergen experimental series was tested on 3 heads (total 12 heads) of Karakol sheep vaccinated with different vaccines against brucellosis 10 months ago in the vivarium of the Brucellosis Laboratory. First, the injection site was cleaned with 70% alcohol (left eyelid, 2-3 cm below the eye) was treated, and each allergen was injected separately in the amount of 0.5 ml in syringes used for insulin. Two heads of sheep were left to control.

When the injection site was monitored daily in sheep: evaluation of reactogenicity - for 5 days, blood samples were tested after 15 days to check the antigenic properties in the agglutination reaction and the platelet agglutination reaction.

When the reactogenicity characteristics of allergens were examined during the 5-day control, the following results were shown: these sheep were fed and watered freely, kept in the same place and monitored, their average daily body temperature was $\sum X - 39.0$ 0C.

Antigenicity (agglutinogenic) properties of allergens were investigated in serological reactions after 15-20-25 days, and the next stage of scientific research was continued.

Summary. As a result of the research, it was found that the normative indicators of the local experimental allergen series studied in Karakol sheep vaccinated with various vaccines against brucellosis correspond to the indicators required for brucellosis allergens.

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