# Therapeutic effectiveness of izatizon application in veterinary.

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Successful treatment of patients, in modern humane and veterinary medicines, is possible only due to complex therapy taking into account aetiology, pathogenesis and disease symptoms. This process needs the applying of complex preparations with wide action spectrum to which izatizon belongs. (patent of Ukraine № 1786 from 29.10.1993) This is an original preparation elaborated by A.I.Potopalskiy and L.V.Lozyuk.

Metisazon (marboran), dimetylsulfoxid (demixid) and polietylenglikol (tvin) with molecular weigh 400 that unite at the same time antiviral, antibacterial, antifungal, antiphlogistic and immunemodulatory action are in the izatizon's formula.

Its effectiveness and wide action spectrum is possible due to the increasing of penetration into the tissues and organs that leads to the inhibition of intracellular viral reproduction and subtend bacterial infection (A.I.Potopalskiy and co-authors, 1995). At the same time even its long application as aerosols, skin and mucous membrane greasing, bondages, compresses, peroral and rectal introduction doesn't have cumulative characteristics and doesn't invoke toxic manifestations. It doesn't have irritable actions and doesn't inhibit hematosis. Having immunostimulatory characteristics izatizon increases organism resistance, provides high antiphlogistic, antihistaminic and medical-preventive effects.

Its rewrite for veterinary was made in 1999. A manual for application was approved by Verbyckiy P.I. the Head Government Veterinary Inspector of the Ministry of Agrarian Policy of Ukraine on 10.04.02 № 15-14/105.

Taking into account izatizon wide action spectrum we applied it during various animal diseases.

We have conducted scientific and productive researches of izatizon application in complex with basic treatment (used in farming) to study its effectiveness in complex therapy. We applied izatizon during acute clinical course of catarrhal bronchopneumonia of cattle cubs in Chernivtsi, Kyiv, Sumy and Poltava regions. During these researches bull calves of 1,5-2 months old were divided in several groups.

Calves of one (control) group were treated with methods that are in farming practice (basic treatment) through application of antiallergenic preparations, antibiotics of wide activity spectrum and sulfanamide. The calves of the other group besides basic treatment additionally received izatizon per rectum in dose of 0,075 ml. of the preparation on 1 kg. of the body weigh (complex treatment) with the help of microclyster twice a day during five days. We made this procedure with the help of syringe without a needle with nozzle made from the polyethylene tube 5 centimeters in length. In 30 minutes prior to the administration it is necessary to make a cleansing enema with warm water.

We have determined that calves that hadn't been treated with izatizon had severer clinical course, treatment course was 3-4 days longer in average and their growth rate decreased comparing with that of complex treatment. Ill calves of the control groups gained clinical recovery on 10-12 days in average while calves that had been treated with izatizon recovered on 6-8 days. Moreover there was an obligatory slaughter of calves and their every day body weigh losses.

Izatizon was also successfully applied during calves treatment from infectious rinotracheitis (lung form) as an aerosol which was received with the help of SAG under the 4 atmosphere pressure on the expectation of 3-4 ml. for 1 $m^3$ of the house during the exposition 40-50 minutes once a day during 3-4 days.

From our point of view positive izatizon influence in the complex treatment of calves acute catarrhal bronchopneumonia is possible due to the stimulation of cell and humoral protective factors of the organism with pernicious influence on the pathogen microflora that is located in the respiratory tracts of infected calves.

High izatizon therapeutic effectiveness, comparing with traditional treatment methods, is admitted during cow therapy infected with different forms of endometritis, mastitis, vaginitis, cervicitis and vestibulitis.

During the endometritis 20% izatizon solution brovamast was injected to the womb in the dose of 20 ml. with the help of polystyrene dropper for rectozervical insemination of farm animals, connected with the syringe with rubber tube. Preparation was applied 2-4 times with the 24 hour interval, depending of the inflammation.

During cow and goat serous-catarrhal and purulent-catarrhal mastitis 10% izatizon solution on the 10% enroflox was injected internally-cisternal in the dose of 10 ml. after the previous milking of the infected part with its following massage from the bottom to the top till its tela.

During the pustular vulvo – vaginitis and other vaginitis, cervicitis and vestibulitis forms, tampon was wetted with 20% izatizon solution on the physiologic saline and introduced into the vagina cranial part with the help of forceps once a day during 3-4 days.

During horse melanoma 10% izatizon solution on 0,5% of novocaine solution was injected under the tumor basis three times a day in the dose of 5-10 ml. with the interval of 48 hours. Tumors disappeared during 14-18 days and the scars oat corn size formed instead of them, which in 2-3 weeks were covered with horsehair.

In cases of the skin surface affection wounds were smeared with izatizon or covered with gauze serviette sodden in izatizon. Than this napkin was fixed with the help of bondage and in a few days tissue granulation growth was observed that equally covered the whole wound surface. In case of need serviettes were changed every 24 hours.

During tissues injuries contamination and pathogen microflora entry to the wound and its abscess, during purulent-necrotic sores after conducting of corresponding surgical treatment of skin defected areas and neighboring tissues, izatizon was injected directly to the wound chamber and also gauze drain was used sodden with izatizon that was changed every 24-48 hours. This leaded to the significant exudation increase of purulent-necrotic masses and rapid wound clearance. As a result its edges became movable and swelling decreased fast. After multiple izatizon application tender small-grained granulation tissue appears. After this wound was closed with stitches without following relapses of suppurative inflammation that gave the possibility to decrease significantly duration time of different processes in the skin and neighboring tissues.

Izatizon is recommended for clinical studies in the medical practice during people treatment from mass viral and infectious diseases (including AIDS), incisive illnesses of respiratory tracts, diseases of oral, pectoral and cardiac chamber, diseases of skin, gland and mucous tunic, brain affections, neuritis and neuralgia, miesitis, otitis, tumor and pretumor diseases, etc.

In the human medicine observations of volunteers ill with relapse forms of stomach ulcer and duodenum have proved izatizon high cure activity and availability during its enteral and rectal application.

So, obtained results testify to high therapeutic effectiveness of izatizon as a preparation of complex action during various inflammatory processes of respiratory system, obstetric and gynaecological cattle pathologies, during various diseases of skin and neighboring tissues of different animals and during horse melanoma treatment. This preparation has excellent prospects in veterinary and human medicine.

*Literature*

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