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Commentary

Potential Risk and Incomplete Virus Inactivation of Rabies Vaccine

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DESCRIPTION

Rabies, also known as hydrophobia is a highly fatal acute disease of the central nervous system. One of the earliest illnesses in human history is this one. Rabies is a global threat to public health and unfortunately, rabies is also a neglected zoonotic disease. The disease is caused by lyssavirus type 1 of the family Rhabdoviridae. Rabies is a zoonotic disease of all warm blooded animals, particularly the carnivores such as dogs, cats, jackals and wolves. Dogs can become infected through a bite by a rabid wild animal or fellow canine in turn a bite from infected dog is the most common method of human infection. The virus is transmitted to man by bites or licks of rabid animals. It is the only human common pathogen that never has a cure [1].

Vaccines are one of the most effective public health interventions. The backbone of future veterinary and human medicine is vaccinations the creation of vaccine biotechnology products, market launch, and adoption into immunization programmes all continue at a rapid clip, reflecting the field's tremendous progress. The first rabies vaccine was made from desiccated spinal cords of diseased rabbits; consequently, it is now recognized that the fixed viruses used to produce these vaccines were not only harmful but could also induce the disease [2].

The development of the first rabies vaccine by Pasteur was surely hoped to eliminate or at least drastically reduce the incidence of rabies. Given that more than 100 years have passed since the first rabies vaccine was created for pre-exposure protection and post-exposure care, new trends and patterns of rabies infection pose a significant challenge and cause for concern for everyone involved in animal science, including veterinarians, epidemiologists, and virologists. In order to prevent rabies in humans with category III bites, Rabies Immunoglobulin (RIG) and vaccine must be administered together [3].

Rabies vaccine to potentially prevent rabies if a humans are exposed, it is advised that those people at a higher risk for rabies exposures, such as those who work with potentially infected animals, obtain the vaccine, if you are more likely to contract the rabies virus. The rabies vaccine should be given to you twice, on days 0 and 7. Depending on your level of risk, you might be instructed to have a few blood tests or get a booster dose within three years of receiving the initial two doses. Additional information is available from your healthcare provider .

To protect them if they are exposed, those at high risk of contracting rabies typically receive the rabies vaccine. If administered to a person after exposure, it can also help to prevent the illness. It can also prevent the disease if it is given to a person after they have been exposed. Several different rabies vaccinations for use in humans have been created and used since the original crude nerve tissue vaccine, with varied degrees of efficiency and safety. The three main rabies vaccinations currently available are the timed nerve tissue vaccines, the cell culture vaccines, and the embrocated egg vaccines [4].

Cell Culture Vaccines (CCV) and Embrocated Egg Vaccines (EEV) have replaced Nerve Tissue Vaccines (NTV) in industrialized countries and are the ones recommended for use by WHO. They are considered safe and well tolerated as compared to nerve tissue vaccines which can induce severe adverse reaction including a potential risk of rabies from incomplete virus inactivation and are less immunogenic. There are still few more, decreasing developing countries that use neural tissue vaccinations [5].

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