

Trials for preparation of inactivated sheep pox vaccine using binary ethyleneimine

Manal Awad 1, A Michael, Soad M Soliman, S S Samir, A M Daoud

Veterinary Serum and Vaccine Research Institute, Abbasia, Cairo, Egypt.

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Binary ethyleneimine (BEI) was used to inactivate the local Egyptian strain of sheep pox virus. The inactivation process was applied using final concentrations of BEI at 0.5, 1, 2 and 3% for different incubation periods at 37 degrees C. The virus was completely inactivated after 7 hours incubation with by 2% BEI final concentration; the inactivated virus was adsorbed on aluminium hydroxide gel when incubated for 6 hours in a concentration 1:1. The antibody levels were estimated by virus neutralization test and ELISA. Specific antibodies appeared from the 1st week post vaccination and remained until the 4th week post challenge. The prepared vaccine was evaluated for safety, sterility and potency. The vaccine proved to be safe, sterile and inducing protection for the vaccinated lambs when challenged by the virulent sheep pox virus up to 6 months post vaccination.