CALCULATED WITHDRAWAL TIME BY LAZUARDI EQUATION METHOD

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ABSTRACT

Residues of veterinary drug on consumption animals were giving hazardous for human health. This research aim was to determine calculated of withdrawal time by new concept namely LAZUARDI EQUATION FOR CALCULATE WITHDRAWAL TIME. The lazuardi postulate was using pharmacokinetics bases and analytical bases. The pharmacokinetics bases approximately taking parameter are dosing of the drug and elimination half-life. The analytical base approximately is taking the values of quantitation limit from instrument detection.

Five adult male local Indonesia sheep at about 30 kg were giving clenbuterol HCl 0.02 mg from 0.75 mL of Ventipulmin® intravenously at single dose. The concentrations drug in plasma were assessed by HPLC reverse phase from serial sampling at time of 40., 60., 90., 120., 180., 240., 300., 360., 480., 500., 620., 740 min. Calculated of withdrawal time were using Lazuardi postulate.

Result research apparently that means of elimination half-life and quantitation limit were obtained at 148.0658 min and 0.053 μg/mL. The conclusions of the research are determine of the drug by from lazuardi equation will be find out approximately at 1 d 5 h 28.32 min.

Keywords: β2-agonist, Lazuardi equation for determined withdrawal time, HPLC reverse phase, pharmacokinetics of clenbuterol.

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INTRODUCTION

The measurement of withdrawal time at last decade was still using old theory by calculate from elimination half-life. Some researcher prepared that technique was did not guaranteed that model would be exactly values of withdrawal time (Nanizar Zaman-Joenoes, 1991) Other researcher explained that technique determined of withdrawal time must be updating by added other parameters. The parameters was using parts of pharmacokinetics parameters and multiplication with safety values. The safety factor about 7th to 10th multiplication from the early values (Lazuardi, 2010). At 1985 Aliu and Odegaard was explained that new method will be launched. That method was using sensitivity value form instrument to detected of avalible of the drug (Aliu, Odegaard, 1985). These method was unsuitable for drug with route of administration via extravascular. The new method from Lazuardi equation will be launched and suitable for all of drug with route of administration extravascular or intra vascular. The new