



Assessment of Insulin and Insulin Resistance in Dairy Cattle with Displaced Abomasum Pre and Post-Surgery

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Abstract:

Displacement of the abomasum (DA) in dairy cattle is a multifactorial disease, with the majority of cases being diagnosed within the first week postpartum. The study aimed to describe the changes in clinical findings, serum levels of insulin, glucose and non-esterified fatty acids (NEFAs) as well as assess insulin resistance in Holstein dairy cattle with DA throughout a long term study from day 0 until day 30 post surgery. The study was conducted on DA cattle (n = 25) belonged to dairy farms in Hokkaido area, Japan. Cows were examined and sampled at days 0 (surgery), 7 and 30. They were clinically and biochemically examined to estimate Body Condition Score (BCS) and serum insulin, glucose and NEFAs. Insulin resistance was measured by using Quantitative Insulin Sensitivity Check Index (RQUICKI). Based on blood β -hydroxybutyric acid (BHBA) at day 0, DA cows were classified into three categories; DA only [

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