

Scientific session SMALL MAMMALS - **Clinical pathology**

## CLINICAL USEFULNESS OF ESTIMATING SERUM FRUCTOSAMINE LEVELS IN FERRETS WITH CHRONIC HYPOGLYCEMIA

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### ABSTRACT

Low serum glucose levels are commonly detected in ferrets with mild chronic signs of hypoglycemia. Studies in humans and dogs have demonstrated a correlation between glucose and serum fructosamine concentrations that can be used to evaluate glucose levels during the previous one to three weeks. This study was designed to determine the clinical usefulness of measuring fructosamine concentrations in the diagnosis and treatment of chronic hypoglycemia in ferrets. A total of 120 samples from 48 normoalbuminemic ferrets were assayed and divided in three groups: hypoglycemic ferrets with mild chronic signs (CF, n=19), hypoglycemic ferrets without mild chronic signs (NCF, n=77), and healthy ferrets (HF, n=24). The results were statistically analyzed by ANOVA and least-square means were compared with the Tukey-t test at a  $P < 0.05$ . Fructosamine concentrations were significantly lower in hypo-

glycemic ferrets with mild chronic signs than hypoglycemic ferrets without mild chronic signs group ( $p < 0.0001$ ) with healthy ferrets presenting the highest value in fructosamine. According to fructosamine reference values and within the studied population, it was observed percentages of 93% Sensitivity and 94% Specificity. The measurement of fructosamine can be useful additional test in managing chronic ferret hypoglycemia, especially in those cases in which there is a discrepancy between the clinical information and glucose levels.

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