Plasma concentration of ionized calcium in healthy iguanas.

Dennis, PM, Bennett, RA, Harr, KE, Lock, BA.

Source
Department of Small Animal Clinical Sciences, College of Veterinary Medicine, University of Florida, Gainesville 32610, USA.

Erratum in

Abstract
OBJECTIVE:
To measure plasma concentration of ionized calcium in healthy green iguanas.

DESIGN:
Prospective study.

ANIMALS:
9 juvenile and 21 (10 male, 11 female) adult iguanas.

PROCEDURE:
Blood samples were obtained from each iguana, and plasma calcium, glucose, phosphorus, uric acid, total protein, albumin, globulin, potassium, and ionized calcium concentrations, aspartate transaminase (AST) activity, and pH were measured. Heparinized blood was used for measurement of ionized calcium concentration and blood pH. A CBC was also performed to assess the health of the iguanas.

RESULTS:
Significant differences were not detected among the 3 groups (juveniles, males, and females) with regard to ionized calcium concentration. Mean ionized calcium concentration measured in blood was 1.47 +/- 0.105 mmol/L. Significant differences were detected between juveniles and adults for values of phosphorus, glucose, total protein, albumin, globulin, and AST activity.

CONCLUSIONS AND CLINICAL RELEVANCE:
Ionized calcium concentration provides a clinical measurement of the physiologically active calcium in circulation. Evaluation of physiologically active calcium in animals with suspected calcium imbalance that have total plasma calcium concentrations within reference range or in gravid animals with considerably increased total plasma calcium concentrations is vital for determining a therapeutic plan. Accurate evaluation of calcium status will provide assistance in the diagnosis of renal disease and seizures and allow for better evaluation of the health status of gravid female iguanas.

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