Interpreting Fructosamine in Diabetes

Fructosamine measurement is sometimes used as an indicator of glycemic control in diabetic dogs and cats. However, this study shows that other pathologic conditions can influence the fructosamine concentration.

Dogs with untreated hypothyroidism were evaluated at the time of diagnosis and after treatment. Fructosamine levels in the untreated hypothyroid dogs were significantly higher than those in the control dogs. All dogs had normal glucose and serum protein levels. Fructosamine levels decreased significantly during treatment with levothyroxine.

COMMENTARY: Previous studies have shown that hypothyroidism leads to an increase in fructosamine levels in humans. This study indicates that, at least in dogs, fructosamine levels must be interpreted cautiously in diabetic patients with hypothyroidism.

Serum fructosamine concentrations in dogs with hypothyroidism. Reusch CE, Gerber B, Boretti FS. Veterinary Research Communications 26:531-536, 2002.