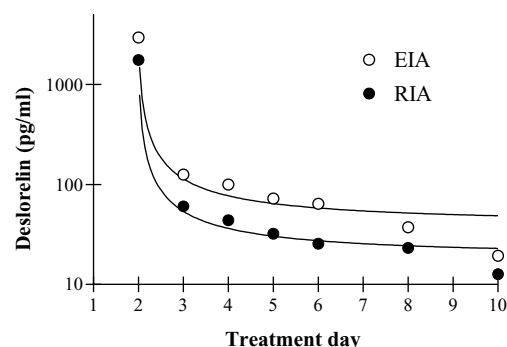


8 pg/ml; intra-assay CV was <5%, inter-assay CV was 9.2%. Non-linear regression was used to compare the assays. Despite earlier success with estrus induction using this drug [1], estrus was not induced in any of the treated bitches in this study based on vaginal cytology (<90% cornified epithelial cells) and serum progesterone concentrations (<2.0 ng/ml). Deslorelin concentrations were elevated for 1–3 days following treatment. There was a significant correlation found between each assay ($R^2 = 0.99$) (Fig. 1). It is not clear why BioReleaseTM deslorelin did not result in estrus induction in bitches in this study. However, it has been suggested that gonadotropin stimulation with GnRH should continue for a minimum of 7–9 days to result in oestrus induction [2]. Future studies will focus on administering multiple injections of BioReleaseTM deslorelin to prolong duration of elevated serum deslorelin concentrations for reliable estrus induction. Reliable estrus induction is needed in conjunction with routine breeding management when breeding opportunities are missed or following conception failure and may also be used as a treatment for primary anestrus.

Keywords: Canine; Deslorelin; Estrus; GnRH; Radioimmunoassay



References

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INFLUENCE OF TAURINE DEFICIENCY ON UTERINE INERTIA IN THE BITCH

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Recent studies have shown that in addition to cardiac muscle, taurine is also found in high concentrations in skeletal and smooth muscle [Kramer, et al. *J Vet Intern Med* 1995;9:253–8]. Taurine is not an essential nutrient in dogs, yet certain breeds appear predisposed to taurine deficiency, including Newfoundlands, Portuguese Water Dogs, Cocker Spaniels, Labrador Retrievers and Golden Retrievers [Torres, et al. *J Anim Physiol (Berl)* 2003;87:9–10]. The objective of this research is to determine if a correlation exists between low plasma taurine concentrations in bitches with altered uterine muscle contractility. We hypothesized that bitches with low plasma taurine concentrations (<60 nmol/mL) would have uterine inertia. Venous blood samples were collected within 7 days of whelping from 18 bitches (Group 1, $n = 8$: spontaneous whelping, including six dogs from taurine-deficient breeds; Group 2, $n = 10$: prolonged whelping). Plasma taurine and calcium concentrations and total dietary taurine were determined using an automated analyzer. All bitches were normocalcemic at time of sample collection. Plasma taurine concentrations were >60 nmol/mL in all bitches from Group 1. Mean taurine did not differ by group, however, 20% of bitches in Group 2 had plasma taurine concentrations <60 nmol/mL. The only breed identified with taurine deficiency in this study was English Bulldogs, a breed that has not been previously described as taurine deficient. Total dietary taurine did not appear to correlate with the plasma taurine, which may reflect the individual's general ability to synthesize sufficient taurine.

Keywords: Plasma taurine; Uterine inertia; Taurine-deficient dog breeds; Dietary taurine; Post-partum

	Mean (range)	
	Group 1	Group 2
Plasma total calcium (mg/dL)	9.2 (7.8–10.4)	8.2 (5.1–10.2)
Plasma taurine (mmol/mL)	194 (94–382)	107 (35–194)
Total dietary taurine (g/kg)	1.0 (0.58–1.94)	0.9 (0.2–1.7)

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