

Effect of deslorelin acetate (Suprelorin®) short-term contraceptive treatment on triiodothyronine (T3) and thyroxine (T4) blood concentrations in queens.

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Objective

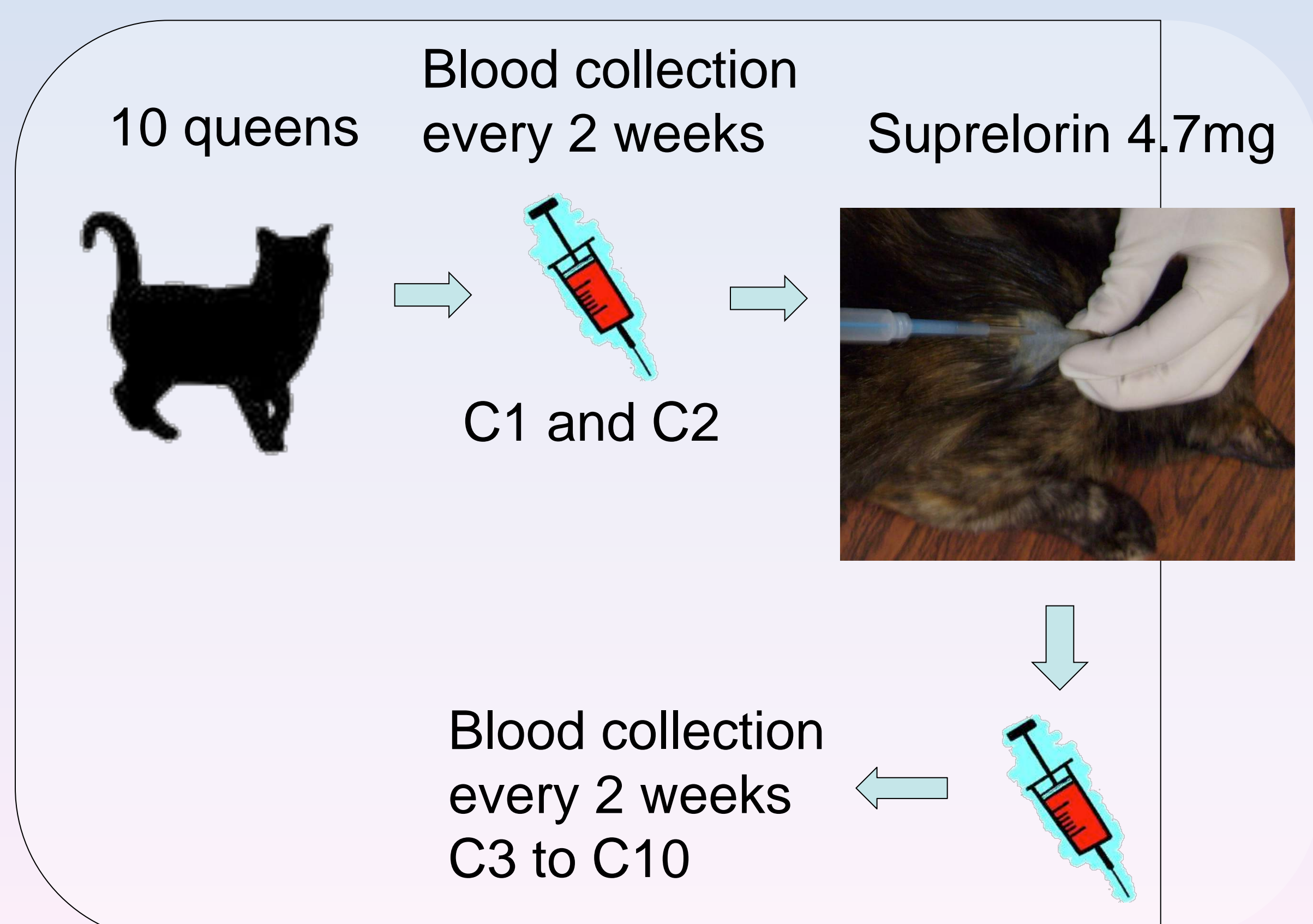
This study aimed to evaluate the effect of short-term contraceptive treatment with deslorelin acetate (Suprelorin®) on triiodothyronine (T3) and thyroxine (T4) blood concentrations in queens.

Material and Methods

Ten pubertal adult queens were kept at the Department of Veterinary Surgery and Anesthesiology, Faculty of Veterinary Medicine and Animal Science, FMVZ, UNESP, Botucatu, Brazil in an experimental cattery under 12 hours light/day period with minimal 150 lux intensity. All females were submitted to blood collections once every two weeks (C1 and C2).

After C2, an implant of deslorelin acetate (Suprelorin®, Peptech Animal Health Pty Limited, Australia; 4.7 mg/animal; sc) was introduced in the subcutaneous tissue of the interscapular region in every queen. Then the blood collections continued once every two weeks during 3 months until the implants were removed (C3 to C10). Right after the collection, blood was centrifuged and plasma was transferred to 1.5 mL eppendorf tubes and stored at -20°C in freezer until time of analysis.

Plasma T3 and T4 concentrations were measured by a solid-phase RIA kit (Coat-A-Count kit, Diagnostics Products Corporation, Los Angeles, CA, USA). The data were submitted to ANOVA following Tukey test and when $P < 0.05$ was considered different.



Results

T3 and T4 blood concentration mean \pm SD obtained during this study were described in Table 1.

Difference was observed only on T3 between C2 and C6, however we believe that this result did not indicate that the treatment affect the T3 production since this difference was not observed in the following blood collections.

Table 1: Mean \pm SD of T3 and T4 blood concentration in queens before (C1 and C2) and after (C3 to C10) contraceptive treatment with deslorelin acetate (Suprelorin® 4.7mg/animal).

Collection	T3	T4
C1	42.49 \pm 7.15	17.15 \pm 1.88
C2	34.26 \pm 9.87*	16.65 \pm 1.87
C3	35.78 \pm 14.77	16.50 \pm 1.80
C4	28.02 \pm 11.62	15.21 \pm 5.05
C5	23.44 \pm 15.72	16.00 \pm 3.54
C6	25.87 \pm 16.73*	15.95 \pm 1.55
C7	19.70 \pm 10.81	15.93 \pm 1.10
C8	30.32 \pm 12.36	16.45 \pm 1.52
C9	30.48 \pm 17.63	15.23 \pm 1.77
C10	24.09 \pm 12.89	15.14 \pm 2.33

*Values within columns with different superscripts are significantly different ($P < 0.05$).

Conclusion

We concluded that short-term contraceptive treatment with deslorelin acetate (Suprelorin®) did not affect the T3 and T4 blood concentration in queens.

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