

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

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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 tom cats.

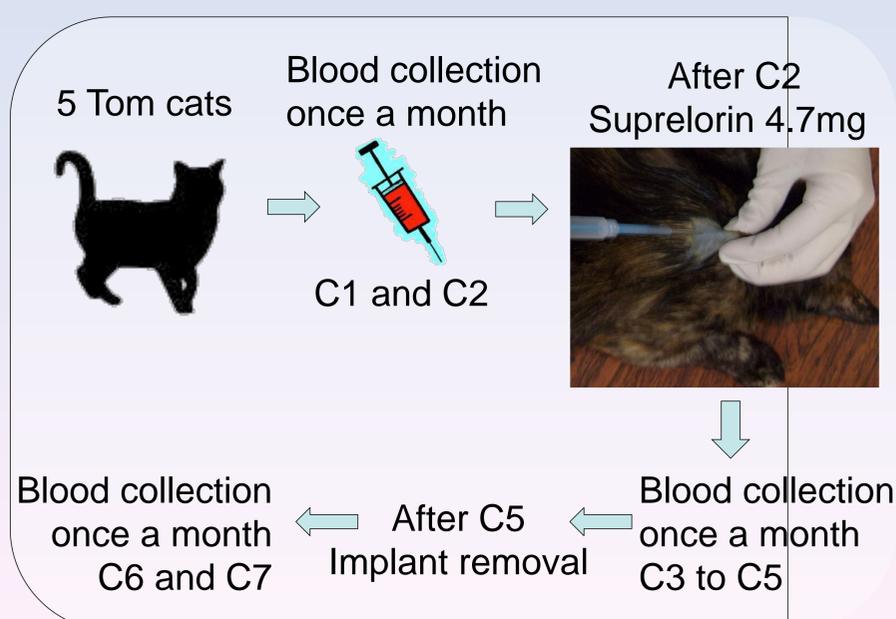
## Material and Methods

Five tom cats, 2 to 3 years old were used. Spermatogenesis in these animals was confirmed by andrological examinations and concentration of plasma testosterone.

Blood collections were performed in all males once a month (C1 to C7). Right after C2 all cats were submitted to anesthetic association and one 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.

After ninety days (C3 to C5) from the application of contraceptives, the animals were anesthetized again and the implants were removed through a skin incision. Blood collections were performed two more times (C6 and C7). 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.

No statistical difference ( $P \geq 0.05$ ) was obtained between any moments.

Table 1: Mean  $\pm$  SD of T3 and T4 blood concentration in tom cats before (C1 and C2) and during (C3 to C5) and after (C6 and C7) contraceptive treatment with deslorelin acetate (Suprelorin® 4.7mg/animal).

Collection	T3	T4
C1	31.85 $\pm$ 14.46	16.05 $\pm$ 1.54
C2	39.69 $\pm$ 13.67	17.27 $\pm$ 2.10
C3	32.98 $\pm$ 11.12	17.70 $\pm$ 1.45
C4	27.43 $\pm$ 16.81	17.41 $\pm$ 0.88
C5	24.96 $\pm$ 7.81	17.70 $\pm$ 0.49
C6	22.05 $\pm$ 7.34	17.97 $\pm$ 0.93
C7	23.25 $\pm$ 4.43	17.32 $\pm$ 1.78

## 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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