

## A NOTE ON THE EFFECTS OF MATERNAL OR FOETAL INJECTION OF FLUMETHASONE AND OF THYROIDECTOMY ON THE TERMINATION OF PREGNANCY

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Pregnancy has been successfully terminated in sheep using potent corticosteroids (Skinner, Jöchlé & Nel, 1970). Furthermore, van Rensburg (1970) reported on the role of adrenal corticosteroids during pregnancy on the incidence of abortion in Angora goat does. Since an antagonism exists between adrenocortical and thyroid function (Guyton, 1966), preliminary experiments were performed on small numbers of pregnant Angora does to ascertain the effects of maternal or foetal corticosteroid administration and of maternal thyroidectomy on the termination of pregnancy. Five does were injected intramuscularly with 0,5 mg of flumethasone (Syntex) at 138 to 140 days of pregnancy. Four of these does gave birth to live kids three and four days after treatment and one doe at normal term. In order to study the effects of foetal corticosteroid treatment on the termination of pregnancy, eight does between 110 and 136 days of pregnancy were laparotomised. The foetuses of these does were injected intramuscularly through the uterine wall either with 0,5 mg of flumethasone (five does) or with Ringer's Solution (three does). This foetal injection with flumethasone initiated parturition in three does within three days of treatment at 130 plus days of pregnancy. No response was elicited in does whose foetuses were injected at 110 and 120 days of pregnancy or any of the does whose foetuses were injected with Ringer's solution between 120 and 136 days of pregnancy.

Three does were thyroidectomised at approximately

60 days of pregnancy. Of these, one doe, a confirmed habitual aborter, aborted at 110 days of pregnancy. The remaining two does gave birth to live kids of subnormal bodyweights at 149 and 151 days of pregnancy.

The results of the flumethasone treatment of the pregnant doe are in agreement with those of Skinner *et al.* (1970) with flumethasone in sheep and van Rensburg (1970) with various steroids in the ewe and the doe. The reaction initiated by the foetal injection with corticosteroids is in agreement with the concept that normal birth in sheep and goats is initiated by the foetal hypothalamus-pituitary-adrenal axis (van Rensburg 1970). In agreement with Turner (1959) it appears that thyroidectomy of pregnant animals does not effect the duration of pregnancy.

### References

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