

Action of Testosterone on Lactation.*

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An inhibitory effect of crystalline oestrone on lactation in mice has been demonstrated by de Jongh¹ and by Robson²: inhibition of milk secretion in mice has also been produced by the injection of gonadotropic hormone from pregnancy urine (Enzmann and Pincus.³)

The present experiments were performed with crystalline preparations of "male hormone", *viz.*, testosterone, testosterone propionate and androsterone. (For the supply of these compounds I am greatly indebted to Messrs. Ciba, Ltd.)

The experiments were performed on mice: a number of animals were injected daily with 0.1 mg. of testosterone propionate in oil, the first injection being given on the day of parturition, or on the morning after parturition when this occurred during the night. The injections were continued for 20 days or until the death of the litter. In all cases there was an appreciable inhibitory effect on the growth of the litters and all but one died from lack of food before reaching the age of 3 weeks. Some inhibition was also produced by injecting the mothers with 0.05 mg. of testosterone propionate per day. Administration of 0.1 or 0.2 mg. of androsterone in oil twice a day had no such effect.

In some experiments testosterone was given as a fine suspension in 10% alcohol over a period of 72 hours or more: 0.05 mg. in 0.05 cc. was injected every 2 hours during the day and twice that amount was given at midnight and at 4 a. m. These injections rapidly brought lactation to an end and the litters died 3-4 days after birth. Suckling and maternal care were not inhibited. Similar injections of androsterone produced only a slight inhibition of growth and the administration of the solvent (*i. e.*, 10% alcohol) had no effect. Further investigations with other compounds are in progress.

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¹ de Jongh, S. E., *Acta Brevia Neerland. Physiol.*, 1933, **3**, 52.

² Robson, J. M., *Quart. J. Exp. Physiol.*, 1935, **24**, 337.

³ Enzmann, E. V., and Pincus, G., *Am. J. Physiol.*, 1933, **103**, 30.