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THE EFFECTS OF DEPOPROVERA,
TESTOSTERONE PROPIONATE AND DURABOLIN ON THE
REPRODUCTIVE ORGANS AND THYMUS GLAND
OF THE CASTRATED MALE RATS.

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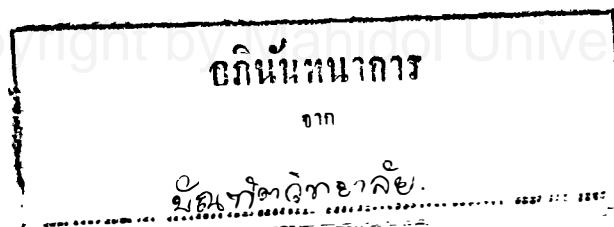
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Summary

The forty young male rats of the Swiss strain, 32-34 days of age, are used and divided into six groups, the young control, the normal control, the castrated control, the castrated and subcutaneously injected every second day for 23 days with 1 mg. Depoprovera, Testosterone propionate and Durabolin respectively. The young control group is sacrificed with ether on the 32-34 days of age and the other groups are sacrificed 24 hours after last injection, on the 62-64 days of age. The thymus, seminal vesicles, prostate gland, ductus deferens and penis are removed and fixed in 10% formalin, embedded in paraffin and sectioned at 7 micra by using Rotatory microtome. All sections are stained with hematoxylin and eosin, and studied with light microscope. The results can be summarized as the following.

1. Castration inhibits the growth of reproductive organs of male rats, and has no effect on body growth rate of male rats, but retards the involution of thymus gland.
2. Depoprovera has inhibiting effects on the body growth rate and smooth muscular capsule of prostate gland of castrated male rats but has weak androgenic effects to stimulate the seminal vesicles, prostate gland and penis of castrated male rats. It has no effect on the ductus deferens. It can maintain involution of the thymus of castrated male rats nearly to that of the normal control.

3. Testosterone propionate has no effect on body growth of castrated male rats but markedly stimulates on the reproductive organs of castrated male rats. It accelerates the involution of thymus gland of castrated male rats.

4. Durabolin has inhibiting effect on body growth rate of castrated male rats but stimulates on reproductive organs of castrated male rats. It has a strong inhibiting effect on thymic growth of castrated male rats.

5. Comparing between these three hormones, it could be said that Testosterone has no effect on body growth rate of castrated male rats but Depoprovera and Durabolin have slightly inhibiting effect.

In the thymus, Depoprovera can maintain the growth of thymus of the castrated male rats nearly to normal control, but Testosterone propionate and Durabolin accelerate the involution on thymus gland of the castrated male rats.

Testosterone propionate and Durabolin have androgenic effect that stimulates the growth of reproductive organs of the castrated male rats. But Depoprovera can only maintain the structure of reproductive organs of the castrated male rats.