

course, produced in considerable quantity in the affected gonad. It is to the coincident presence of this hormone that we would attribute the normality of the birth mechanism which we have encountered in high dosage with the implant method (8 rat glands per day). It does, in fact, occasionally bring about premature birth through a folliculin effect. On the other hand, the administration only once daily of a highly concentrated fraction out of human placenta or urine of pregnant women has given the characteristic birth retarding effect.

4414

Stimulation of Placentoma Reaction in Virginal Endometrium by Treatment with Anterior Hypophyseal Hormone.

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From the Department of Anatomy, University of California.

It has been shown that the anterior hypophyseal growth hormone markedly aids the placentoma reaction of the endometrium of adult virginal rats, tumors of this sort being provoked about silk threads when simultaneous dosage with the growth hormone is carried out.* The anterior hypophyseal hormone which promotes precocious development of the immature ovary, has a similar effect if it is not administered so as to stimulate greatly the follicular apparatus and lead to the formation of much folliculin. It is for this reason, we believe, that the administration of forms of the hormone (extracts of the urine of pregnant women and of human placenta) are more efficacious in stimulating placentomata than is the implant method.

4415

Hyperplasia of Mammary Apparatus in Precocious Maturity Induced by Anterior Hypophyseal Hormone.

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Within 6 days, the mammary tree of 24 day old female rats is clearly increased in complexity by all methods of administration of

* Whatever the substance injected, it is a routine to give 3 days preliminary treatment and 5 days treatment after insertion of the threads, autopsy occurring on the sixth day after the threads were inserted.

the anterior hypophyseal hormone known to us. We have employed bovine and rat implants and folliculin-free and growth hormone-free extracts of the ripe human placenta and of the urine of pregnant women. The implant method shows such an effect with only 2 daily treatments and sacrifice on the fourth day. In some cases hyperplasia was seen to have begun before lutein structures were present in the young ovaries. The secretion of corpora lutea therefore could not have been responsible for this stimulus to mammary growth, though the growth was always most marked in cases in which corpora lutea were coincident with a hypertrophied follicular apparatus.

4416

**Hyperplasia of Mammary Apparatus of Adult Virginal Females
Induced by Anterior Hypophyseal Hormones.**

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From the University of California, Department of Anatomy.

The mammary tree of adult virginal rats invariably undergoes some hyperplasia after a month of daily treatment with alkaline extracts of the anterior hypophysis, solutions very rich in growth hormone and almost completely devoid of the hormone which stimulates the ovaries of immature rodents to precocious development. By more chronic treatment with such an extract this can be brought to true milk secretion. Mammary hyperplasia takes place with more speed after treatment with the anterior hypophyseal ovary-stimulating hormone (bovine or rat hypophysis implant, or extracts of placenta and of the urine of pregnant women). The hyperplasia is, in fact, remarkable after only 10 days dosage with the latter methods.

4417

Effects of Thyroparathyroidectomy on the Teeth of the Rat.

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The effects observed by Erdheim¹ and later by Toyofuku² in the teeth of parathyroidectomized white rats led Erdheim to emphasize

¹ Erdheim, J., *Frankf. Z. Path.*, 1911, vii, 175.

² Toyofuku, T., *Ibid.*, 1911, vii, 249.