

the same total dosage over a period of 10 days produced an average increase in ovarian weight of 460%.

Administration of the untreated urine to one hypophysectomized rat, and of an extract to 2 hypophysectomized rats for periods of 7 or 10 days resulted in a very great development of the theca and interstitial tissue. This result is characteristic of the "anterior-pituitary-like" hormone found in pregnant women (Noguchi,⁶ Collip *et al.*,⁷ Smith and Leonard.⁸)

Conclusion. It was found, on the basis of 3 biologic tests, that the gonad-stimulating hormone in the urine of a patient with a teratoma testis had the same characteristics as the substance occurring in the urine of pregnant women.

7418 C

Gonad-Stimulating Hormone in Urine of a Patient with a Chorioepithelioma Uteri.*

C. F. FLUHMANN AND P. E. HOFFMANN.

From the Department of Obstetrics and Gynecology, Stanford University School of Medicine.

Although the discovery of Rössler,¹ that the urine of women with hydatidiform mole or chorioepithelioma uteri contains large amounts of a gonad-stimulating factor, has been repeatedly confirmed, there is as yet no information available as to the nature of this hormone.

The specimens examined in this study were from a patient under the care of Doctors Reginald Knight Smith and T. Henshaw Kelly. She was a woman of 29, who developed a chorioepithelioma uteri following a hydatidiform mole, and died with extensive metastases in the liver and in the lungs.

A number of extracts were prepared by alcohol precipitation of the urine, and various dosages were injected into more than 25 immature rats. The histologic examination of the ovaries of these

⁶ Noguchi, K., *Jap. J. Med. Sc., Pharmacol.*, 1931, **5**, 104. Quoted by Collip *et al.*⁷

⁷ Collip, J. B., Selye, H., and Thomson, D. L., *Nature*, 1933, **131**, 56.

⁸ Smith, P. E., and Leonard, S. L., *PROC. SOC. EXP. BIOL. AND MED.*, 1933, **30**, 1248.

* Supported in part by a grant from the Rockefeller Fluid Research Fund of Stanford University School of Medicine.

¹ Rössler, H., *Z. f. Geburtsh. u. Gynak.*, 1929, **96**, 516.

animals showed the presence of a few corpora lutea, lutein cysts, and developing graafian follicles. The injection of a known dosage of the extract to a group of 5 rats over a period of 5 days produced an average increase in ovarian weight of 63%, while the administration of *the same total dosage* over a period of 10 days to 5 littermates gave an average increase of 90%. It has been shown previously that these 2 findings are characteristic of the gonad-stimulating hormone found in pregnant women and not of anterior pituitary extracts (Fluhmann^{2, 3}).

Administration of the untreated urine failed to induce any demonstrable changes in the atrophied ovaries of 2 hypophysectomized rats, but a concentrated extract induced an extensive development of the theca and interstitial tissue in 4 other instances. It has been shown by Noguchi,⁴ Collip *et al.*,⁵ and Smith and Leonard⁶ that this is a characteristic of the gonad-stimulating hormone of pregnant women.

Conclusion. The gonad-stimulating hormone found in the urine of a patient with a chorioepithelioma uteri had certain biologic characteristics similar to those of the substance occurring in women during normal gestation.

7419 C

Accelerated Production of Poliomyelitis.*

JOHN A. TOOMEY.

From the Department of Pediatrics, Western Reserve University, and the Division of Contagious Diseases, City Hospital, Cleveland, Ohio.

When I injected poliomyelitis virus in *Macacus rhesus* monkeys either intrasciatically, intracerebrally or directly into the cord in the region of the first lumbar segment, periods of 4, 7 and 2½ to 3 days, respectively, elapsed before paralysis came on. Such latent inter-

² Fluhmann, C. F., *Endocrinology*, 1933, **17**, 550.

³ Fluhmann, C. F., *PROC. SOC. EXP. BIOL. AND MED.*, 1933, **30**, 1014.

⁴ Noguchi, K., *Jap. J. Med. Sc. Pharmacol.*, 1931, **5**, 104. Quoted by Collip *et al.*⁵

⁵ Collip, J. B., Selye, H., and Thomson, D. L., *Nature*, 1933, **131**, 56.

⁶ Smith, P. E., and Leonard, S. L., *PROC. SOC. EXP. BIOL. AND MED.*, 1933, **30**, 1248.

* Expenses defrayed in part by a grant from the Marion B. Spellman Fund, The Cleveland Foundation.