

Examination of the urine and feces shows that, although in some cases the actual amount of excretion is not markedly increased, the percentage found in the urine relative to the feces is always larger, indicating an increased absorption and retention of these constituents in the blood. Orr, Holt, Wilkins and Boone² and others have found similar effects on radiation in rickets and on diets deficient in calcium. Our results seem all the more significant since they were obtained on normal animals on complete diets, and suggest the possibility of stimulating balances, already positive, to optimum by radiation. In order to be able to make accurate comparisons, we have measured the radiation used spectrographically and spectroradiometrically, and express the dosage in absolute units.

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A brief note on the anatomy of the uterine opening of the Fallopian tube.

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A brief preliminary report¹ was recently made to call attention to the fact that in some of the laboratory animals it was always easy to inject from tube to uterus, whereas, when an injection was made in the reverse direction, the injection mass would pass more readily when the animal was found to be near the time of ovulation. Serial sections were made of the uterine opening of the Fallopian tube in the cat, dog, rabbit, rat, guinea pig, and pig. In all cases the opening of the tube was guarded by special folds, which, in the case of the pig, were easily visible in the gross after fixation. A single human specimen failed to show the folds. These special folds were free of glands in the case of the cat, rat, and pig; whereas in the dog a few glands were found. Furthermore, the stroma in these folds contained a large amount of connective tissue so that these structures were not flattened to the

² Orr, Holt, Wilkins and Boone, *Am. J. Dis. Child.*, 1924, xxviii, 574.

¹ Lee, F. C., *Proc. Soc. Exp. Biol. and Med.*, 1925, xxii, 335.

same degree as the mucosa elsewhere when pressure was applied during the injection. Finally, an increase in thickness of the muscular coats at the tubo-uterine junction was present in some animals, particularly in the rabbit.

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I.

Concerning the influence of polarized light on some convulsant drugs: A contribution to photo-pharmacology.

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In connection with a study of the effects of light on the actions of various drugs and poisons, which the author has been carrying on during the last few years—a field of science to which the term “photo-pharmacology” may be appropriately applied—the author made some extremely interesting observations on the influence of polarized light on the pharmacological action of certain drugs on animals, which it is the purpose briefly to describe in this communication.

The influence of light on the effects of certain cerebrally acting convulsant drugs in rats was investigated. The drugs studied in particular were camphor, santonin, and cocain. A number of experiments were also made with solutions of carbolic acid. The above drugs were injected either subcutaneously or intraperitoneally in equivalent doses in white rats, and the onset, severity and duration, etc., of the convulsions were noted under different conditions. Equivalent quantities of a drug per body weight were injected simultaneously into two or more rats. One of the animals was exposed to *polarized* light, while the other was illuminated by a *non-polarized* light of the same intensity, the temperature and other conditions being the same in the two sets of experiments. The source of light used was electric Mazda lamps of 150 or more kilowatts. Polarized light was obtained in some experiments by means of a large Nicol prism, while in