

marked effect upon the growth of the worms, and also that the experiments can be duplicated.

None of *these* organisms produced pathological changes in the worms. Natural infections among planarian worms do occur, if care is not exercised to avoid outside contamination. We began using only sterilized water upon the worms about five years ago, and since then have had no trouble from these epidemics. Very definite pathological lesions are produced in the worms during these epidemics, but whether these are of bacterial or protozoan origin I do not know, and I doubt whether any work has been done upon this subject.

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Pellagra: An Experimental Study of the Skin Lesions.

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It was reported in a previous publication¹ that the skin lesions of pellagrins improved while they were restricted to a so-called "pellagra-producing" diet. Since this diet consisted of such diverse foods as cornmeal, pork fat, artificially colored (synthetic) maple syrup, polished rice, cornstarch pudding, and sugar, it seemed advisable to observe the skin lesions of pellagrins limited to a diet less complex in food materials and even more deficient in vitamin G. Evidence is presented in this paper to show that the dermatitis of pellagra often improves while the patient is restricted to cornstarch and lactose.

Ten cases with the characteristic dermatitis of pellagra were chosen for this experiment and extreme care was exercised to select patients without neurological involvement. Each patient remained in bed during the experiment and was given a diet of cornstarch and lactose amounting to 2,000 or 3,000 calories per day. Two of the 6 individuals in this series with stomatitis were unable to tolerate this diet so it was discontinued. The skin lesions of the 8 patients who remained on the diet of lactose and cornstarch showed definite

¹ Spies, T. D., *Am. J. Med. Sc.*, 1932, **184**, 837.

improvement during the first 6 to 15 days of the experiment. The stomatitis of one individual improved and that of the 3 others became worse while they received the restricted diet. The 4 patients free of stomatitis at the beginning of the experiment did not develop it and none of the pellagrins used in this experiment showed any signs of central nervous system involvement.

It has been noted by the writer² as well as by others that pellagra may involve the central nervous system, the gastro-intestinal tract, and the skin in the same patient, while in other patients it may affect one or 2 organ systems. In several instances² the writer has observed that the dermatitis and stomatitis healed while there was a steady progression of the central nervous system disease. It seems from these observations that too much importance may have been attached to the healing of the skin lesions by some of the investigators of the past. In view of this work and of the known observations concerning the lack of uniformity of the disease in involving the various organ systems of the body, it even appears possible that the specific chemical substance related to the development of the dermatitis is not the same as that affecting the other manifestations of pellagra.

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Protein as a Stimulant for Secretion of Pepsin.

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Experiments were conducted on the secretion of gastric juice by Pavlov gastric pouch dogs in response to diets in which the protein was made the variable of interest. These diets were adequate for maintenance and differed only with respect to the kind and amount of protein present. Secretion was followed for 9 hours

² Spies, T. D., unpublished data.

* This is a report of a part of the data contained in the dissertation presented by Elizabeth R. B. Smith to the Faculty of the Graduate School, Yale University, May, 1933, in partial fulfillment of the requirements for the degree of Doctor of Philosophy. The expenses of this research were defrayed in part by a grant from the Committee on Therapeutic Research, Council on Pharmacy and Chemistry of the American Medical Association.