accompanying tables indicate the relative amount of kidney lipoid stained by Sudan III.

TABLE I—*Guinea Pigs.*

No.	Survival in days	Kidney lipoid
2	Killed at second operation	++
2A	10 (died from overheating)	trace
4	9	++
6	6	++
7	Died from shock, second operation	trace
9	3.5	+++
10	3	++
11	8	++
12	26	+
13	7	++

TABLE II—*Rats.*

No.	Survival in days	Kidney lipoid
3	28	+
11	15	trace
24	9	++
26	12	trace
29	11	++
39	10	+
41	9	trace
51	8	+
52	10	trace
53*	10	++
54	11	+++
56*	13	+++
57	10	++

*Killed.

Eight out of 10 apparently normal guinea pigs serving as controls showed an entire absence of lipoid while one showed +lipoid and the other with chronic diffuse nephritis showed ++lipoid. Lipoid was absent from 3 out of 6 rats used as controls. One showed a trace. The remaining 2 showed + and ++ lipoid, both being rats with sarcoma.

Our observations show that there is a definite increase in the kidney lipoid of guinea pigs and rats after the removal of both adrenals. This increase is not so marked as that present in adrenalectomized cats.

[1] Hartman, F. A., MacArthur, C. G., Gunn, F. D., Hartman, W. E., and MacDonald, J. J., *Am. J. Physiol.*, 1927, lxxxi, 244.

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Infectious Dermatitis in Man Produced by a Bacillus Related to Escherichia Formica

STUART L. VAUGHAN. (Introduced by B. Roman.)

From the Department of Laboratories, General Hospital, Buffalo, N. Y.

A peculiar skin affection of the wrist in 2 greenhouse workers, father and son, came under our observation, and from the lesions of both patients a bacillus which seems responsible for the affection

was recovered in almost pure culture. At the time of observation the lesions were several months old, having developed slowly in both cases after a diffuse cellulitis of the wrist. The lesions consisted of well circumscribed, round or oval, reddened and indurated, slightly raised patches (2 on the extensor surface of the right wrist in the father and 1 in the same place in the son), of about 2.5 cm. in diameter, presenting a rough surface studded (in the father) with small pustules. Histologically, the lesion was represented by a considerable hypertrophy of the epidermis and a dense cellular infiltration of the corium consisting chiefly of large and small lymphocytic cells, few leucocytes and occasional giant cells of the Langhans type; but in some places there was a predominating leucocytic infiltration with abscess formation.

Smears from the lesions in both cases showed an abundance of Gram-negative bacilli, partly phagocytized and partly free, and a few Gram-positive cocci arranged like staphylococci. In cultures from both cases, on ordinary media, the bacillus grew abundantly and exclusively. From studies of the morphological, cultural, and chemical properties of the microorganisms, it does not seem possible to classify it with any of the known pathogenes. It is pathogenic for rabbits and guinea pigs, especially the latter in which intraperitoneal inoculation of 0.2 cc. of a broth culture caused death with peritonitis, multiple hemorrhages in the lungs, and bacteremia. Injections of killed cultures into rabbits gave rise to the formation of agglutinins and complement fixing antibodies. The bacillus belongs to the genus *Escherichia* (S.A.B.) and but for its failure to grow on sodium formate media and to ferment dulcitol would correspond with *Escherichia formica* (S.A.B.).* However, no group agglutination could be demonstrated with its agglutinating serum on 6 different strains of *Eschericia* (a strain of *Escherichia formica* not being obtainable).

Intradermal injection of 0.2 cc. of a 24-hour broth culture of the bacillus into 4 rabbits and 1 guinea pig caused a circumscribed inflammation (abdomen) which in the guinea pig and 1 rabbit subsided rapidly. In 2 rabbits it persisted for 14 days in the form of a local induration, and in the remaining rabbit the process continued progressively for several weeks in the form of a superficial ulcer, from which the bacilli were recovered in pure culture. Specific agglutinins for the bacillus are present in the father's serum up to the present time, about 1 year after the healing of the lesions.

* Classification Society of American Bacteriologists as given in Bergey's Manual of Determinative Bacteriology, Williams and Wilkins Co., Baltimore, 1925.

The origin of the infection and its relation in the 2 patients could not be established. In several samples of earth and fertilizing material from the greenhouse in which the patients were working, the bacillus was not found. The infection of the son occurred late in the course of the father's infection and the possibility of the son having been infected from the father cannot be excluded.

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Elimination of Urine and Dye by Aglomerular and Glomerular Kidneys.

J. GRAHAM EDWARDS. (Introduced by W. J. Atwell.)

From the Department of Anatomy, School of Medicine, University of Buffalo.

Detailed anatomical studies were made preliminary to quantitative analyses of blood (plasma) and urine taken simultaneously from certain fish (teleosts). These studies establish definitely the character of the renal tubule and the blood supply to the kidney. In the aglomerular kidney, the blood supply is solely venous. In the glomerular kidney it is venous and arterial. Although arterial vascularization is apparently the necessary accompaniment of glomerular development, no definite relation obtains between the number of glomeruli developed and the number of tubules connected with them. All stages are found from no glomeruli to few or many. In 4 genera represented in 3 widely differing and unrelated families, the mesonephroi of which are (a) entirely aglomerular, (b) almost aglomerular, (c) predominantly glomerular, the blood and urine were analyzed for the commonly occurring constituents except uric acid and sulphates. The results of these analyses (analyses by Dr. Luigi Condorelli, Department of Clinical Pathology, the Royal University of Naples) show clearly that the urine eliminated by the 3 types of mesonephroi is closely comparable and also comparable to that eliminated by the kidney of higher vertebrates, including man.

The excretion of dye by these kidneys was also determined quantitatively and found to be comparable. As far as could be determined by direct observation of the tubule in the aglomerular kidney of the living fish, which was accomplished with partial success under great difficulty, it appears that the entire tubule is colored by the dye a short time after its injection. Intraperitoneal injections of from 0.6 mg. of the dye, tetrachlorphenolsulphonephthalein, in a 3-gm.