

It is evident that a single inoculation is usually sufficient (in 72.7% of the cases) to produce infection.

Slightly more than half of the dogs died of a primary amebic enteritis. The intercurrent diseases which were primarily responsible for the death of the other animals are indicated in Table III. However, it would be erroneous to assume that similar infections did not play an important rôle in those succumbing to amebiasis, since it is hardly possible to obtain an animal from the streets without one or more pathogenic infections.

On the basis of these data it may be stated that experimentally 94.7% of the dogs in our Tulane series have been found susceptible to infection. Theoretically it would seem that all dogs with a similar history are susceptible. Resistance in these animals is relatively low, particularly when the active inoculum is introduced by rectum into the posterior ileum. Fifty-six members of the series became infected after a single inoculation. Only a single member of the group remained uninfected after multiple attempts to produce the infection. Another dog became positive only after 5 inoculations had been made. Spontaneous recovery, in so far as it can be determined at necropsy, was indicated in 9 of the 77 cases in the series. The protocols for some of these cases give a history of acute amebic dysentery following inoculation; in others the lesions were few, there was no symptomatology, and the organisms almost immediately disappeared from the bowel. In 2 such cases, however, lesions were found *post mortem* in the subcutaneous tissues, where foci of amebae, completely walled off from the lumen of the bowel, were actively multiplying. Nevertheless, it is believed that in some of the animals, the amebae had been completely evacuated from the bowel and that recovery had been spontaneously effected.

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Failure to Produce Filterable Forms of the Common Pathogens in the Kendall Media.

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Kendall¹ described a culture medium containing unaltered, or nearly unaltered protein, and without peptone or significant amounts

¹ Kendall, Arthur I., *Northwestern Univ. Bull.*, 1931, **32**, 5.

of other nitrogenous substances, upon which he was able to cultivate a filterable coccus from influenza patients and filterable forms of such organisms as *B. typhosus*, *B. paratyphosus* A, *S. aureus*, *Leptospira icterohemorrhagiae*, and Dochez' scarlet fever streptococcus. We have endeavored to repeat his work using the Kendall media with *B. typhosus*, *B. diphtheriae*, *S. albus* and *S. viridans*.

Plain Kendall (K) medium sterilized by autoclaving and the clear K medium sterilized by passage through a Seitz filter after a preliminary heating to 50°C., as directed by Kendall,² were employed in the experiments. The powdered dried pig intestine was obtained by one of us (Craig) from Major J. S. Simmons, of the Army Medical School, Washington, D. C.

Cultures were made in series in both types of media, using the organisms mentioned. Incubation at 37°C. was continued for 3 days when subcultures were made. The original cultures were kept at plus 4°C. All of the cultures of each series were assembled at the end of the 5th transplant and the entire quantity of cultures of each organism filtered through newly purchased Berkefeld N filter candles. The filtrate was inoculated into double strength veal bouillon in quantities of from 0.1 cc. up to 50 cc. and incubated for several days in an attempt to elicit growth. Ten cubic centimeter quantities were also inoculated into the "plain K" medium which was incubated for 3 days and transplants made into ordinary media. In no instance did a growth of any of the 4 test organisms result in any of the cultures.

A second similar series, using the same test organisms, were filtered through Seitz filters with similar results.

The growth of these test organisms in both the Kendall "plain" and "clear" media was rather poor. The number of bacteria, in all except the cultures of *S. albus* gradually diminished, while the fifth subcultures of *B. typhosus* and *S. viridans* apparently died and could not be transplanted to either fresh Kendall or ordinary media. Living organisms survived in earlier cultures held at (+)4°C. Examination of the stained smears of the various organisms from the cultures did not reveal any unusual diminution in size other than would be expected in any poor medium which does not favor a luxuriant growth of the particular organism.

² Kendall, Arthur I., *Northwestern Univ. Bull.*, 1931, **32**, 8.