

no place in the treatment and examination of ophthalmic diseases. A stronger solution would undoubtedly be a more active mydriatic and cycloplegic but would be too toxic to justify its use.

6. The results of these experiments do not wholly agree with those of Lewin-Guillery.<sup>3</sup>

## 3114

**Some similarities between the dysentery amoeba of the monkey  
and of man.\***

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The dysentery amoeba of the monkey and that of man are so similar in structure that some regard them as probably being the same species, though other investigators have given them different species names. In an attempt to procure experimental evidence on this question two monkeys found to be amoeba-free were fed cysts of *E. dysenteriae* of man. Examination of the feces during a period of three months and of histological sections following autopsy showed the presence of cysts and trophozoites of *E. dysenteriae*, morphologically and racially indistinguishable from the amoeba fed, thus indicating that the dysentery amoeba of man may be experimentally established in the monkey. Subsequently, two cats, six months and seven months of age respectively, found negative for protozoa by preliminary examination, were given rectal injections of monkey feces containing cysts of the dysentery-like amoebae of a naturally infected monkey, using the technique of Boeck and Drbohlav.<sup>1</sup> Two months later, autopsy of the cats showed the amoebic infection to be well established in the upper colon and cecum, where there was excessive mucous, pronounced hyperemia, and a distinct thickening of the gut wall. Trophozoites of amoebae, many of which contained red blood

<sup>3</sup> Lewin-Guillery, *Wirkungen von Arzneimitteln und Giften auf des Auge*, Berlin, 1913, S. 204.

\* Contribution No. 74.

<sup>1</sup> Boeck, W. C., and Drbohlav, J., *Am. J. Hyg.*, 1925, v, 371-407, 4 pls.

corpuscles, were found in great numbers in these regions and histological sections showed necrosis of the mucosa and penetration of the amoeba into the tissue. Amoebae from the infected colon of the cats were planted into the L. E. S. medium of Boeck<sup>1</sup> and at the time of writing seventeen successful subcultures have been made on alternate days and the cultures show no signs of dying out.

If the cat is proved to be specifically susceptible to *E. dysenteriae*, then experimental infection of cats with the dysentery amoeba of the monkey lends strong evidence in favor of the species identity of these two amoebae. The present work and also that of Mello,<sup>2</sup> who reports dysentery in kittens produced by an experimental infection of active amoebae from acute dysentery in the monkey, both support this hypothesis. The experimental transfer of the dysentery amoeba of man to the monkey and the easy cultivation of the dysentery amoeba of the monkey in the same medium in which *E. dysenteriae* is cultivatable are additional evidence in favor of this species similarity.

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<sup>2</sup> Mello, U., *Ann. d'Igiene*, 1923, xxxiii, 533-552, 2 pls.