idea of *Endamoeba histolytica,* as found in infections, than is conveyed by the use of ordinary cultures of this parasite.

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PHOTOGRAPHING ANIMALS

THE scientific photographer often has trouble getting animals in a suitable position. Small animals are very active and will not stay long enough in a pose to be photographed successfully. We tried out a method for quieting snakes and lizards and it gave good results.

The photographs were made at night with Eastman flash paper, and the animals remained still in spite of the flash. The animal to be photographed was placed under an inverted box for a minute or two until all signs of commotion had ceased. The box was lifted quickly but smoothly, the flash-paper was ignited and the film was exposed. This method was also tried in broad daylight with lizards, snakes and rats, and gave good results with all the animals tried. This simple method may be good when the animal has to be moved to certain surroundings and resents it. Evidently the swift change from total darkness to a sudden glare leaves the animal dazed for a moment and gives time for the exposure.

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SPECIAL ARTICLES

ACCELERATED INFECTION IN EXPERIMENTAL POLIOMYELITIS

THE 1931 epidemic of poliomyelitis will enable investigators to study by experimental means, in monkeys, many aspects of the disease, as well as the virus inducing it. The establishment of strains of the human virus in monkeys is attended by initial difficulties which it is desirable to overcome. The experience of the past indicates that a proportion only of human strains can be implanted on the monkey. *Macacus rhesus* is the species which has been commonly employed for inoculation. It has not infrequently happened that after the first successful inoculation of monkeys with human spinal cord or medulla obtained from fatal cases of poliomyelitis, the succeeding inoculation of the spinal cord of the affected monkey has failed to induce disease. The reason for this disparity is not known. It is supposed that degeneration or virus metabolic products contained in the human cord act to make the originally inoculated monkey more susceptible to infection.

A way has been found to increase the proportion of successful inoculations of affected human and monkey spinal cords and brain stems. A number of years ago, Amoss and I observed that an attenuated strain of the monkey virus, unsuccessful on first inoculation, could be made to induce infection by repetition of the injection. We have recently employed this method in implanting 1931 human strains of virus on *Macacus rhesus* monkeys. The method consists in injecting intracerebrally and intraperitoneally, under ether anesthesia, 10 per cent. suspensions of glycerolated spinal cord. The suspensions should be free from bacteria as shown by aerobic plate tests. In our experience thus far, symptoms have either not appeared at all in from 7 to 10 days, or initial symptoms, slight in degree, have arisen and have failed to progress or have disappeared. The effects, if any occurred, tended therefore to the production of the abortive form of experimental poliomyelitis.

Time was allowed to elapse in order to determine whether the symptoms would progress or recede. As no increase occurred, reinoculation was resorted to with material from the same subjects as was employed for the original injection. Again the double—intracerebral and intraperitoneal—inoculations were made, using of course the opposite side of the brain. The symptoms which were stationary or receding were rapidly augmented; and about three days after the second injection the symptoms became pronounced, progressing quickly to paralysis and prostration, as is the rule with infected monkeys.

Not only can the abortive be converted into the progressive paralytic disease by means of reinoculation, but monkeys which develop no detectable symptoms in 11 or 12 days have been successfully infected through the employment of a second injection. The critical period seems to be about three days after the second injection. Within this brief period an accelerated reaction occurs. Whether the acceleration is due to virus alone, or in part to the alien (human) tissue elements, is not known. It may be merely a summation of virus effects, such as Amoss and I observed with monkey strains of virus. The results as described are not invariable. In one or two instances the accelerated effect either failed to arise or was delayed.

The tests to determine whether the reinoculation method suffices to establish durably in monkeys many strains of human poliomyelitis virus have yet to be completed. It remains also to be seen whether highly potent virus strains adapted to monkeys can be readily secured in this manner.

The histological changes present in the spinal cord