

EXPERIMENTAL FINDINGS AT CHIENGMAI

TO THE EDITOR:

The following is a summary of an address by Dr. Douglas B. Collier, Medical Adviser of the Chiengmai Leper Asylum, Chiengmai, Thailand (Siam). It is forwarded for the reason that the claims made, if they should be confirmed, would have an important bearing on the control of the disease.

At the leprosy hospital at Chiengmai, Thailand, research work has been carried out into the causation and on the treatment of leprosy.

Causation.—With regard to causation, it has been suggested [Oberdoerffer] that eating *Colocasia* predisposes to leprosy. *Colocasia* is stated to contain saptotoxin, which in rats causes marked degeneration of the adrenal glands. Working on the assumption that eating this tuber predisposes individuals to leprosy, monkeys have been fed on it and subsequently inoculated with leprosy material. All of the major symptoms of leprosy have been found in the experimental animals and bacilli having all the morphological characteristics of the leprosy bacilli have been recovered from the skin, ears and nasal secretions of the test animals. The results of these experiments (it is claimed) support the theory of adrenal insufficiency as a predisposing factor in human leprosy, while the results of animal inoculations provide a method and a suitable animal for experimental work.

Treatment.—Diphtheria antitoxin has been tried and found to produce a temporary immunity. By using diphtheria toxoid, however, much better results have been obtained. The benefit of the toxoid seems to lie in the wholesale destruction of the bacilli. In 50 cases examined microscopically, definite changes have been found in the bacilli after treatment with this substance. Not only are skin lesions improved, but nerve lesions also benefit. One injection of toxoid (it is stated) gives lasting relief, usually within 48 hours. The nerves not only regain proper function and sensation but are reduced rapidly in size and in some cases return to normal within a short period.

Immunity.—Attempts are now being made to immunize monkeys with toxoid in the hope that this may be found of value for use in human beings.

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