INFECTION OF HAMSTER, WITH BACILLEMIA

TO THE EDITOR:

Apropos the article by H. C. de Souza-Araujo on the infection of the hamster with human leprosy, with bacillemia, which was published in the first issue of The Journal for 1941, I wish to call attention to two articles by us on the subject of experimental inoculation of animals, with leprosy materials. These are: Row, Dalal, and Gallerkeri, Indian Journal of Medical Research 21 (1934) 545-552, and Row, Transactions of the Royal Society of Tropical Medicine and Hygiene 32 (1939) 497-504.

From the former of these reports it will be seen that, by intraperitoneal inoculation of white mice with human leprosy material, it is not difficult to induce nodular lesions in the omentum. These nodules are not only heavily laden with acid-fast bacilli, but the bacillary accumulation indicates that the organisms have proliferated in situ. It was felt at the time that we had found a laboratory animal suitable for experimental work on human leprosy. But the bacilli recovered from these lesions were found to be incapable of inducing similar lesions on successive inoculations, and we therefore came to the conclusion that the mere presence of even large masses of acid-fast bacilli, without any cell reaction, did not justify us in taking the phenomenon as an infection. Such masses, we believe, resulted from an accumulation of the acid-fast bacilli forming the nodules in the omentum, caused by an innocent local proliferation of the bacilli arrested in the lymphatics and subsequent encapsulation of them, like "foreign body granulomata."

Our observations seem to have escaped the notice of Dr. Souza-Araujo. I submit that the mere presence of "beautiful clumps of Hansen bacilli" in the heart's blood of his hamsters does not constitute "bacillemia." The claim appears premature until evidence is forthcoming that these accumulations set up an endocarditis, followed by dissemination of the bacilli in distant vascular areas with specific cellular reaction seen in the course of any infection by bacilli.

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