

## BRIEF REPORTS

*The purpose of this department is to facilitate the reporting of interesting cases and observations that otherwise might not be recorded.*

### IMMEDIATE EFFECTS OF PROPHYLACTIC ANTITYPHOID VACCINATION OF LEPERS

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The development of a symptom complex suggestive of typhoid fever in a milk handler in the dairy of this hospital prompted the anti-typhoid immunization of all persons upon the reservation, although the suspected case subsequently proved not to be typhoid fever.

TABLE 1.—*General analysis of effects of antityphoid vaccination of 307 lepers and 266 nonlepers.*

Groups and effects		First injection	Second injection	Third injection
Vaccinated	lepers	307	305	300
	nonlepers.....	266	264	260
No symptoms	lepers .....	188 (61%)	139 (45%)	194 (65%)
	nonlepers .....	133 (50%)	107 (40%)	136 (52%)
Symptoms	lepers .....	119 (39%)	166 (54%)	106 (35%)
	nonlepers.....	129 (48%)	157 (60%)	117 (45%)
Number of symptoms	lepers .....	174	258	145
	nonlepers.....	143	188	152

Previous experience has shown that lepers are subject to leprosy exacerbations as a result of vaccination, notably small-pox vaccination (1). The prophylactic measure herein referred to offered an opportunity to compare reactions to the injections in lepers with those encountered in nonleprosy persons similarly immunized.

The vaccine was administered to 307 leprosy patients. Of the 300 who received three doses, 66 (or 22 percent) gave no local or general symptoms following any injection. A total of 266 nonlepers were similarly injected, and of these 52 (or 20 percent) were likewise entirely negative.

The figures given in Tables 1 and 2 show that larger percentages of lepers than nonlepers gave no symptoms following each injection, and that the lepers made less complaint of local reaction. It is believed that this difference represents greater familiarity with hypodermic injections, and the willingness of lepers to minimize their discomforts, rather than any lesser sensitiveness to antityphoid vaccine. The large difference in local reactions following the third injection may be due to the fact that a Government Laboratory vaccine was used with the nonlepers in this injection, while a commercial preparation was used in all the others.

TABLE 2.—Symptoms caused by antityphoid vaccination of 307 lepers and 266 nonlepers.

Symptoms	First injection		Second injection		Third injection	
	Lepers	Nonlepers	Lepers	Nonlepers	Lepers	Nonlepers
Headache .....	68 (38%)	33 (23%)	72 (28%)	44 (23%)	39 (27%)	27 (18%)
Fever .....	42 (24%)	20 (14%)	75 (28%)	34 (13%)	40 (27%)	39 (26%)
Local reaction .....	22 (12%)	67 (47%)	65 (25%)	72 (38%)	27 (18%)	64 (42%)
Malaise .....	6	10	1	18	2	6
Dizziness .....	4	1	2	3	4	3
Drowsiness .....	5	2	6	1	4	1
Nausea .....	7	3	10	4	3	3
Chills .....	4	1	5	3	5	4
Leprous nodules .....	3	0	4	0	6	0
Leprous erythema legs .....	0	0	1	0	0	0
Aggravation of lesions .....	0	0	0	0	3	0
General pain .....	4	1	11	2	4	2
Pain in eye .....	0	0	2	0	2	0
Pain in neck .....	1	5	0	7	3	1
Pain in chest .....	0	0	0	0	0	2
Pain in abdomen .....	4	0	0	0	0	0
Pain in back .....	1	0	0	0	0	0
Pain in legs .....	2	0	1	0	0	0
Pain in joints .....	0	0	2	0	0	0
Pain in nerves .....	0	0	0	0	2	0
Swelling of hands .....	1	0	0	0	0	0
Diarrhoea .....	0	0	1	0	0	0
Pruritis .....	0	0	0	0	1	0
<b>Total .....</b>	<b>174</b>	<b>143</b>	<b>258</b>	<b>188</b>	<b>145</b>	<b>152</b>

Headache and fever were predominant general symptoms in both groups, with larger percentages among the leprosy patients; five of the latter were recorded as having severe headache and more than moderate fever. In this group there was also a wider range in localization of pains.

Seven leprosy patients showed marked exacerbations of leprosy nodules, and three had a general lepra reaction. No other transient effect, and no permanent effect, on the progress of the disease was noted.

In none of the nonlepers was the reaction severer than is usual, except in one person who developed a reactivation of malaria.

This survey suggests that a small percentage of lepers will probably give evidences of transient activation of leprosy lesions following antityphoid immunization, and that the rest will suffer but little more discomfort than is usual among nonlepers.

#### REFERENCE

- (1) DENNEY O. E. AND HOPKINS, R. Specific leprosy reactions and abnormal vaccinia induced in leprosy by smallpox vaccination. *Publ. Health Rep.* **37** (1922) 3141-3149.
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