Each ischial tuberosity is 2 inches from the protractor. While viewed through the hole in the rectangle the zero line of the protractor is aligned with the dorsal-most portions of both ischial tuberosities (Fig. 1, F). A weight sufficient to produce a 1° displacement in normal animals (1 g for rat, 0.1 g for mouse) is suspended from the right ischium midway between the tuberosity and the acetabulum (Fig. 1, H). Fifteen seconds from the time the weight was applied the amount of displacement of the right ischial tuberosity is recorded using the arm attached to the protractor in the same manner as described for determining sacroiliac joint flexibility (Fig. 1, G). Once adept, one can perform the entire procedure in less than 10 minutes from the time the animal is sacrificed.

Detailed reports in which this method was used to quantitate changes in pelvic joint flexibility in the rat and mouse during pregnancy and following estrogen and relaxin treatment are forthcoming.

Summary. A method was devised for measuring small differences in pelvic joint flexibility in rats and mice. The procedure in which weights are used to produce joint flexion and a protractor to measure the amount of flexion in degrees is described.

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Received September 1, 1955. P.S.E.B.M., 1955, v90.

Response of Mice to Standard Infecting Doses of *Mycobacterium tuberculosis* var. *hominis*.* (21994)

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We described(1) a procedure which could be used to determine the effectiveness of chemotherapeutic agents for the suppression of an experimental tuberculous infection of mice. Data available at that time indicated that the method was highly reproducible. This method now has been applied to the *in vivo* assessment of chemotherapeutic activity for a period of 5 years. Not only has the original estimation of the reliability of the method for this purpose been confirmed, but, in addition, data has been collected during this period which is of importance in regard to the response of untreated normal mice to tuberculous infection. One to 6 groups of untreated normal mice have been infected almost every month during this period. The nature of the response of these untreated control mice to inoculation with a standard infecting dose of *M. tuberculosis* var. *hominis* H37Rv will be the subject of the present communication.

* This study was aided in part by a grant from Parke, Davis & Co., Detroit, Mich.

Method. Since the standardized mouse infection procedure has already been described in detail(1) it will suffice here to state that "Strong A" strain mice weighing between 18 and 22 g were maintained and housed under standard conditions and infected intraven-

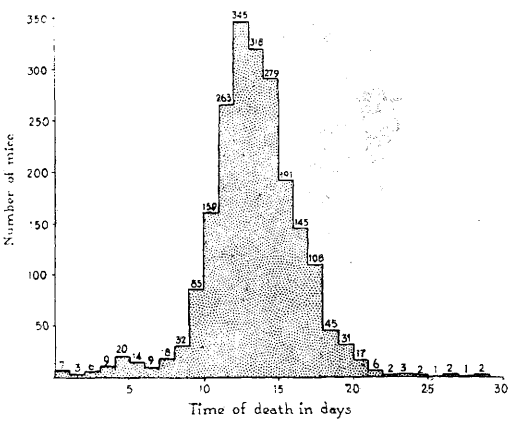

FIG. 1. Distribution of deaths of mice infected with 1.0 mg of H37Rv strain of *M. tuberculosis* var. *hominis*.

TABLE I. Median Survival Times of Groups of Strong A Strain Mice Injected Intravenously with 1.0 mg of the H37Rv Strain of *M. tuberculosis* var. *hominis*.

Year	Month												Yearly means
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1950		12.5	13.5	15.0	15.0	14.0	13.0			13.0	13.0	13.5	13.57
		13.0	14.5	16.0	14.0	14.0	13.5			12.5		11.5	
			14.0		14.0	13.5				11.5			
			15.0			12.5							
1951	12.5	12.0		14.5	15.5	11.5	14.5	15.0	12.5	14.5	12.5	14.0	13.53
	14.0	12.5		14.0	13.5	11.5		16.0	15.0	14.0	12.5		
	14.0					11.0		16.0	12.0	13.0	11.5		
						13.5				14.5	13.0		
										15.5			
1952	16.0	13.0	12.0	12.0	11.0	11.5	12.5	13.0	14.5	13.0	15.0	13.5	13.11
	14.0	14.5	12.5	14.5	12.5	14.5	14.5	10.0	14.5	14.0	12.5	10.5	
	14.0	13.5	11.0	12.5	12.0	13.5			10.5	11.5	11.5	15.5	
	13.0	14.5	15.0	13.0	14.0				12.5	13.5	14.5		
			12.0		13.5					13.5			
1953	15.5	13.0	11.5	14.5	12.5	12.5	13.0	12.5	13.0	13.5	13.0	14.5	12.70
	11.5	12.5	14.5	12.0	12.0	11.5	12.0		13.0	14.0	14.5	13.5	
	14.0	12.0		12.5	14.5	8.0	10.5		12.5	12.0		12.0	
	12.0	12.5		13.0	12.0	12.5	11.5		14.5	12.5			
					13.5		15.0			11.5			
					10.0								
1954	18.0	14.5	14.0	12.0	14.0	15.0	13.5	12.0	13.0	13.5	13.0	14.5	13.47
	14.0	13.5	13.0	12.0	13.5		12.5	10.5	13.5	12.0	14.0	12.5	
	13.5		12.5	13.5	14.0		11.5	12.5	11.0	14.5	14.5	12.0	
									15.0	19.5		14.0	
										12.0		14.0	
Monthly means	14.0	13.10	13.21	13.40	13.21	12.53	12.88	13.05	13.13	13.43	13.11	13.25	

ously with 1.0 mg wet weight of the virulent H37Rv strain of *Mycobacterium tuberculosis* var. ***hominis***. Following inoculation a record was made of the time of death in days of each mouse. Each mouse was autopsied shortly after death in order to confirm that death was due to tuberculosis. The cumulative percent of mice dead was plotted against time of death on logarithmic probability paper, the median survival time estimated and the 95% confidence limits calculated using the method of Litchfield(2).

Results. Fig. 1 shows the distribution of deaths of 2,123 of the 2,173 untreated normal mice contained in the 180 groups which were infected over the 5-year period 1950 through 1954. The mean survival time of the mice shown in Fig. 1 was 13.84 $\pm$ 3.16 days. Fig. 1 does not include 4 mice which died at the time of inoculation; 37 mice which were accidentally killed, and 9 mice which lived more than 30 days. Inclusion of the 9 mice which lived longer than 30 days gives a mean survival time of 14.02 $\pm$ 4.56 days.

Table I shows the distribution of median survival times of the 180 groups of mice according to both year and month for the years 1950 to 1954 inclusive. The yearly means of the median survival times varied between 12.70 and 13.57 days. Analysis of variance showed that statistically these yearly means did not differ significantly. The means of the monthly median survival times varied between 12.53 and 14.0 days. Again, analysis of variance revealed that statistically these means did not differ significantly.

Discussion. The preceding data clearly show that with standardization of technic and by the use of a strain of *Mycobacterium tuberculosis* var. ***hominis*** maintained at constant virulence(3) the response of an inbred strain of mice to tuberculous infection can be remarkably uniform. The demonstration of such uniformity of response and the definition of the conditions necessary to produce it are highly desirable preliminaries to attempts to measure, on the one hand, the degree of natural or acquired immunity to tuberculosis or,

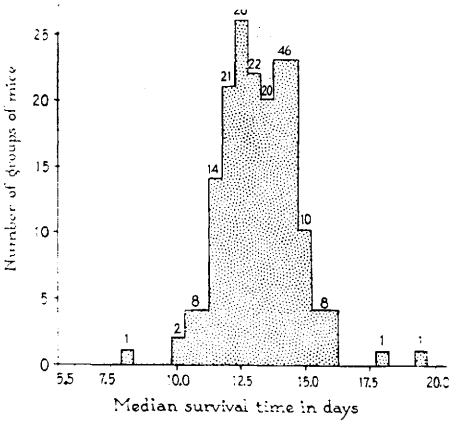

FIG. 2. Distribution of median survival times of groups of mice injected with 1.0 mg of H37Rv strain of *M. tuberculosis* var. *hominis*.

on the other, the virulence of strains of Mycobacteria.

The data also offer no support for the occurrence of any yearly or seasonal variation in the resistance of this strain of mice to tuberculous infection. This might in part be a reflection of the fact that these mice were housed in an air conditioned animal room and were therefore not subjected to extreme variations in temperature. However, this room faces south and during the summer temperatures in this room ranging between 90° and 5°F have been recorded. The observed extreme temperatures in this room have been approximately 65°F in the winter and approximately 95°F in the summer.

Summary. 1. Over a 5-year period, 1950 through 1954, one to 6 groups per month of 10 to 30 mice each were infected intravenously with a 1 mg inoculum of the H37Rv strain of *Mycobacterium tuberculosis* var. *hominis*. 2. The median survival times of 177 (98.3%) of the 180 groups infected during this period fell between the 10th and 16th day inclusive. Statistical analyses revealed that there was no significant difference between the yearly means of the median survival times nor was there significant difference between the monthly means of the median survival times.

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Received September 2, 1955. P.S.E.B.M., 1955, v90.

Hypothalamic Lesions in Goldthioglucose Injected Mice.* (21995)

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(Introduced by F. J. Stare.)

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Recent investigations have demonstrated the essential similarity of goldthioglucose obesity and hypothalamic obesity in mice(1-3). This in turn led to the re-examination of the possibility that hypothalamic lesions may be involved in the mechanism of action of goldthioglucose despite the fact that other investigators(4,5) did not succeed in demonstrating such lesions. Since the possibility existed that through a process of reabsorption and repair, any damage to the central nervous system may be at least in part obscured in the obese animal during the period required for the obesity to develop. it was decided to examine injected animals shortly after goldthioglucose administration. Goldthiomalate, though similar to goldthioglucose in gold content, molecular weight and toxicity does not produce obesity(6), consequently it was de-

* Supported in part by Grant No. A-49, National Institute of Arthritis and Metabolism, National Institutes of Health, Bethesda, Md.; Sugar Research Foundation, N. Y.; Kellogg Co., Battle Creek, Mich.; and Nutrition Foundation, N. Y.

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