

medium before sterilization, and desired dilutions of drug per *ml* of medium were obtained. After sterilization the activity of dihydrostreptomycin was regarded as 1/2 of the original activity. Each series of tubes containing various concentrations of each drug were prepared, and each series of tubes consisted of 10 to 50 tubes. Each series of tubes were inoculated with the same amount of various dilutions of cell suspension. The number of survivors grown on a media containing streptomycin or isoniazid was observed after a 4 weeks incubation and that containing PAS after a 6 weeks incubation. Thus, the survival curves were made and the following results were obtained.

(1) The maximal concentration of streptomycin not affecting the variability of almost all of the individual cells of this sensitive strain was 0.16 *mcg* per *ml* of medium, that of PAS was 0.15 *mcg* per *ml* of medium, and that of isoniazid was 0.01 *mcg* per *ml* of medium. Highly resistant mutants, which were resistant to 100 *mcg* of streptomycin, to 100 *mcg* of PAS, or to 10 *mcg* of isoniazid, were isolated in one step by selection of the sensitive strain. The rate of appearance of mutants highly resistant to these drugs was in the neighborhood of  $1 \times 10^{-8}$ . Therefore, the form of streptomycin resistance, of isoniazid resistance and of PAS resistance in *M. tuberculosis* var. *hominis* is similar to the form of streptomycin resistance in *Staphylococcus aureus* shown by Demerec (1948) and, therefore, the isoniazid resistance and the PAS resistance in *M. tuberculosis* var. *hominis* have been also regarded as facultative multiple-step resistance characteristic of streptomycin resistance in this organism.

(2) The susceptibility of population for lower concentrations of streptomycin was most heterogeneous and individual cells of population of the sensitive strain showed a great deal of variability in degree of resistance to lower levels of streptomycin, and the susceptibility of population for lower concentrations of isoniazid was most homogeneous and individual cells of population were fairly uniform in their degree of resistance to lower levels of isoniazid. This was intermediate with PAS.

(3) The growth rate of PAS resistant mutants was retarded in the presence of PAS. Although the growth-retarding effect of PAS was not significant in the presence of a large amount of PAS-resistant mutants, it was significant in the presence of a small amount of the mutants. The number of survivors of the organism plated on the Ogawa's medium containing various concentrations of PAS should be determined at least after a 6 weeks incubation period, whereas, the number of survivors plated on the medium containing streptomycin or isoniazid can be determined after a 4 weeks incubation period.

正 誤 表

本誌、第 30 卷 11 号 (昭和 30 年 11 月号) “*mycobacterium* の薬剤耐性獲得の機序”——牛場大藏他著 (p. 648~p.653) に誤りがありますので、下記に訂正致します。

		誤	正
649 頁	Table 1 a)	isoniazid——→	streptomycin
”	” b)	streptomycin——→	isoniazid
”	右段上から 3 行目	1a——→	1b
”	右段上から 5 行目	1b——→	1a
651 頁	Table 3 b)	glycerin-broth——→	glycerin-agar