Studies on the Antibiotic Substances from Actinomyces. 15th Report.

(Preliminary note)

By

Masahiko Kuroya, Nakao Ishida, Ken Katagiri,

(黒屋 政彦) (石田 名香雄) (片桐 謙)

Bunji Takahashi and Takehiko Shiratori.

(高橋 文治) (白取 剛彦)

(From the Department of Bacteriology, Faculty of Medicine,
Tohoku University, Sendai.)

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1. Eight strains of Actinomyces belonging to streptothricin type (1 and 2) and the purified active HCl salts isolated from them were examined comparatively upon their "antibacterial spectra" using several kinds of test organisms including streptomycin resistant *E. coli* and 4 strains of *E. coli* which were made resistant to each of 4 different kinds of streptothricin respectively. All streptothricin resistant *E. coli* strains were resistant to each of HCl salt solutions of both types of streptothricins in a similar way, so it was not possible in this way to differentiate both types of streptothricins from each other. They were useful, however, in order to differentiate the culture of Streptomyces themselves, because the streptothricin resistant *E. coli* strains were somewhat differently subceptible according to their own types, even if they were far more resistant than the original strains of *E. coli*.

2) A strain of Streptomyces (O-1) showed a streptothricin-like spectrum in a state of culture on the plate, while the other strain (488) in a state of culture filtrate and finally the third strain (149) in a state of pure HCl salt solution, showed a similar spectrum. This fact indicated that there were many incomformities between the spectra produced by organisms, by their culture filtrates or by the solutions of isolated antibiotics, and may be explained by the assumption, that the antibiotics produced by Streptomyces culture on the plates may exceed both, qualitatively and quantitatively that contained in their culture filtrates and may contain other antibiotics different from that yielded in a state of HCl salt solutions.