Studies on the Antibiotic Substances from Actinomyces.

(14th Report)

In Vitro and In Vivo Activities of Several Kinds of Basic Antibiotics from Actinomyces upon Pasteurella Tularensis.

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The activities of several kinds of basic antibiotics from actinomyces isolated in this laboratory were tested upon Pasteurella tularensis in vitro and in vivo, being compared with those of streptomycin, chloromycetin and colistin and the results obtained were as follows:

1) The in vitro activities of these substances upon Pasteurella tularensis were arranged in the following order:

Streptomycin (3 µg), Roseomycin (25 µg), No O-20 (50 µg).

Minimal inhibitory doses were indicated too. All other substances, i.e. chloromycetin, colistin, No 259 and Seki substances showed no activities at all.

2) In experimental tularemia infection in mice, both streptomycin and roseomycin showed a similar excellent preventive action in a same dose (1 mg per day divided into 4 doses) in spite of different activities in vitro.