

Reaction in Guinea Pigs Infected with Tubercle Bacilli at the Onset of Dust Inhalation. Of the group of 40 guinea pigs infected with attenuated tubercle bacilli, R₁ strain¹²($\frac{1}{12}$), at the time that exposure to dust was begun, 31 died or were sacrificed before the completion of two years of dust exposure and were reported in the paper by Gardner and Cummings⁽¹⁾. Seventeen of these died from intercurrent pneumonia. Briefly, the results were as follows: 10 revealed some evidence of spread of the tuberculous process (fig. 8); in 6 of these it was confined to the lungs and in the other 4 the abdominal viscera also were involved. Extension of the infection was first seen after 7 months of dust inhalation; during the next 20 months more than half of the animals showed an actively spreading tuberculosis and in 3 of them small cavities had developed. During the last 8 months no animals exhibited any evidence of active infection although in half of them the healed fibrous scars of previous spreads were obvious. The scars were more extensive than is characteristic of either tuberculosis or asbestosis alone.

The 9 animals which were still alive after two years of dust exposure were sacrificed at intervals during the following year. In 4 of them the primary foci of infection were healed with fibrosis and even calcification and there was no evidence of progression (fig. 9). In the other 5 the tuberculous foci showed evidence of having previously spread locally; in 4 of them, by the time of autopsy, the foci were healed, with excessive fibrosis; in the remaining animal there was a generalized chronic tuberculous pneumonia in one lobe and in the other lobes there were isolated primary tubercles, which were still active but had not spread.

¹²
12. Steenken, W., Jr. and Gardner, L.U.: R₁ Strain of Tubercle Bacillus. Am. Rev. Tuberc. 54, 51, 1946.

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