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# The Effect of Cortisone on Tuberculin Reaction of Guinea Pigs Infected with Attenuated Tuberculosis (Aurobacterial Tuberculous Complex)

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The use of a tubercular bacillus attenuated with a method of our own (*Ballabio, C. B.:* Caratteri e natura dell'allergia nella cronica tubercolosi della cavia da complesso aurobatterico tubercolare. Ed. P. Ganassini, Milano, 1949) has enabled us to provoke a greatly attenuated tuberculous infection in the guinea pig: this infection is useful to reveal particular immunobiological conditions, much more similar to the allergic phenomena observed in man. Such a pathological condition is able to stimulate the formation of antibodies in the absence of peripheral demand and is likely to cause an accumulation of antibodies in those organs where these are normally deposited: the presence of antibodies may be put in evidence by means of passive transfer. Under these experimental conditions guinea pigs show a high degree of sensitivity, which seems particularly indicated for the study of certain allergic phenomena.

Ever since 1947 we have conducted experiments to test the effect of DCA on the tuberculin reaction of guinea pigs infected with aurobacterial tuberculous complex; under these circumstances DCA has a slight activating effect on the cutaneous reaction to tuberculin. We have now investigated the effect of cortisone (1–2 mg of hormone subcutaneously 24 hours before the tuberculin test) and we have seen that cortisone has an inhibitory effect on the tuberculin reaction, both reactivity and sensitivity to tuberculin being reduced. This inhibitory effect is less evident than the effect determined by a more prolonged treatment and larger single doses of cortisone; it is likely to depend upon a strictly hormonal mechanism, acting probably on antibody titer or on antigen-antibody reaction and not upon the well known unspecific action of the hormone on tissular reactivity, which has been demonstrated through experiments of others and of ourselves.