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**Positive Wassermann Reaction Induced in Rabbits by Injection
of Hamster Tissues.**

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In connection with a previous study of the susceptibility of the Chinese hamster (*Cricetulus griseus*) to syphilitic infection,¹ it was noted that normal rabbits developed strongly positive Wassermann reactions after being injected with hamster tissues in which the syphilitic virus could not be demonstrated by rigid biological methods. The question arose as to whether the tissues of the normal hamster, when injected into the rabbit, are capable of inducing Wassermann reactive bodies in the circulating blood. Consequently, further studies were made on rabbits injected with various tissues of normal hamsters. The following is a summary of the results obtained with injections of various tissues by different routes.

Unless stated otherwise the hamster tissues used were emulsified in sterile normal saline shortly before being injected into the rabbit.

* C represents a complete, P a preliminary manuscript.

¹ Hu, C. K., and Pearce, L., PROC. SOC. EXP. BIOL. AND MED., 1932, **29**, 1154.

Wassermann tests were made on the blood serum according to the Kolmer technique.² This method proved to be quite reliable in our hands. Among 71 normal rabbits tested there was only one false positive reaction in an animal which was in poor physical condition.

1. *Testis*. Seventeen rabbits received 0.5-1.0 cc. of the emulsion intratesticularly, and all of these developed a positive Wassermann reaction. In one rabbit injected intraperitoneally the same positive result was obtained. Two other animals injected subcutaneously into the right flank, gave similar results. Two rabbits injected intravenously with the emulsion which had been filtered through sterile gauze, in doses of 0.3 and 0.5 cc., showed a weakly positive reaction in the blood.

2. *Brain*. All 7 rabbits injected intratesticularly with the emulsion developed a strongly positive Wassermann reaction, while 2 other animals injected intravenously gave negative results.

3. *Whole blood* (not treated with saline). Each of 5 intratesticularly injected rabbits developed a fairly strongly positive Wassermann reaction. In another animal, injected subcutaneously (0.2 cc.), the reaction was weakly positive.

4. *Spleen*. Only one animal was injected subcutaneously (1.0 cc.). The reaction proved to be strongly positive.

5. *Kidney*. Two rabbits were injected (1.0 cc.) subcutaneously. The Wassermann reaction became positive in both cases.

Of the 5 varieties of hamster tissues used, the testis gave the strongest positive Wassermann reaction, and the blood gave the weakest response. The strongest reactions were obtained with the intratesticular route of injection, and the weakest with the intravenous route. Usually the Wassermann response was manifest from 2 to 3 weeks after the injections.

The substance (or substances) in the tissues of the normal hamster responsible for the induction of a positive Wassermann reaction in the injected rabbits has not yet been identified. Experiments carried out by Zia and Hu³ showed that heterophile antigens present in the hamster tissues are not responsible for the positive Wassermann reaction.

The results of the experiments are conclusive in showing that the injection of normal hamster tissues induces a positive Wassermann reaction in rabbits. The response is independent of the route of injection.

² Kolmer, J., *Infection, Immunity and Biologic Therapy*, Philadelphia, W. B. Saunders, 1925, p. 478.

³ Zia, S., and Hu, C. K., *PROC. SOC. EXP. BIOL. AND MED.*, 1935, **32**, 991.