

This amount of virus would be, roughly speaking, 400 times enough to cause a scrotal reaction in 4 days, or twice the test dose used in the above experiments.

Tests were made using both the glycerin and saline mixture and the tissue washed free of glycerin and taken up again in saline. In both instances test animals showed only a slight rise in temperature which occurred 4 days after inoculation and lasted only 2 days before returning to normal. In six animals so tested no temperatures higher than 103.6°F. were observed. Transfers of heart's blood, *Tunica vaginalis*, spleen and brain failed to re-establish the virus after 2 passages. Glycerolated virus preserved for 2 weeks produced no reaction at all when given under similar conditions.

It would appear that the immunity produced by inoculations of formolized tissue is not lasting, and that its production is accompanied by marked reaction to the relatively large quantities of "vaccine" substance employed. The "vaccine" retains its potency only for a short time.

The question of the nature of the "vaccine" (as to whether the virus is formol killed or formol attenuated) remains unsolved. It would seem, however, that the virus in formolized tissue would be dead since infected tissues preserved in glycerin and stored for 2 weeks at 9° C. produced no reaction at all.

## 5883

### Serum Sickness in Offspring of Serum Injected Rabbits.

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In the rabbit, manifestations of serum sickness are apparent upon the ears 3 to 7 days after a primary injection of serum, and consist of a characteristic erythema with or without an edema. In some animals that have previously received serum there is noted upon a second injection of the serum, similar manifestation of serum disease occurring however, within a few hours to 3 days post-injection; these reactions are probably analogous to the immediate and accelerated types of serum sickness occurring in man incident to a second injection of serum.<sup>1</sup>

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<sup>1</sup> Fleisher, M. S., and Jones, L., *J. Exp. Med.*, 1931, **54**, 597.

It was of interest to determine whether or not this capacity for immediate or accelerated reaction acquired upon serum injection, was transmitted from serum-injected mother to offspring. Accordingly in a limited number of young rabbits born of serum-injected mothers an attempt was made to determine the extent of the latent period that would elapse between time of injection and the advent of serum sickness.

In a litter of 6 young animals 53 days old, offspring of rabbit injected with horse serum 50 days prior to birth of young, serum sickness as indicated by erythema and edema of the ears was observed in 2 animals within 7 hours after serum injection, in another animal serum sickness occurred on the 6th day after injection while in 3 animals no reaction was observed. The immediate reactions (those occurring within 7 hours) indicate probable transmission from serum-injected mother to offspring of potential capacity for hastened reaction upon serum injection, since similar early reactions have never been noted in more than 150 normal full-grown rabbits receiving a primary administration of serum.

In 9 young animals 53 to 129 days of age, the offspring of 4 animals which had been injected with serum 23 to 50 days prior to birth of young, serum sickness was observed only in 1 animal and at 5 days after injection.

Since immediate reactions have never been observed in normal rabbits injected with serum it may be assumed that the occurrence of immediate reactions in the 2 animals noted above, is indicative of transmission from serum-injected mother to offspring of the potential capacity for early reaction to the administration of serum.