Recent experiments have shown that the amount of antitoxin necessary to neutralize 10 M. L. D. of our toxin is slightly less than 0.01 U. S. units. Since the tests for antitoxin in the serum were made with only 0.1 c.c. this means that two of the babies were born with approximately 0.25 units, one with 0.1 units, two with 0.05 units and one with no appreciable antitoxin per c.c. of serum. Although we have been unable to study the colostrum we should expect to find antitoxin there whenever we find it in the serum, thus giving the child an additional supply.

Since the antitoxin level in the mother's and child's bloods is, in the majority of cases, at approximately the same level it seems probably that the placenta is permeable to this antibody. It indicates also that antitoxin has a much simpler structure than the other so-called immune bodies which fail to pass this organ.

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The occurrence of intranuclear inclusion bodies in certain tissues of the rabbit inoculated directly with the virus of herpes labialis.

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B. Lipschütz has described in experimental herpetic keratitis of rabbits intranuclear, acidophilic bodies, staining readily with eosin, variable in size and shape but usually round or oval and separated from the nuclear membrane by a narrow clear space. They may appear homogeneous or faintly granular. He found these bodies constantly in the nuclei of the epithelial cells and considered them pathognomonic of this lesion. Rarely similar bodies were encountered in the nuclei of connective tissue cells of the lesion. He succeeded in demonstrating these bodies also in the conjunctiva of the inoculated rabbit's eye and in herpetic vesicles of human skin.

We have attempted to determine in what tissues of the rabbit the virus of herpes labialis will take as determined by the presence of the above intranuclear bodies at or near the sit of inoc-

ulation. The procedure adopted was as follows: A virus obtained from a herpetic vesicle of the human lip was inoculated upon the scarified cornea of a rabbit and was transferred from cornea to cornea at two- or three-day intervals. The intranuclear bodies were found characteristically in corneas thus inoculated. Purulent secretion was collected twenty-four hours after inoculation of a cornea, suspended in saline solution and injected in small quantities with a hypodermic syringe into rabbits as follows: directly into the testicle, into the brain after trephining the skull, and into the abdominal organs after laparotomy. The tracheal mucosa, the abdominal skin and the muco-cutaneous border of the lip were scarified and purulent conjunctival secretion was rubbed into the scarifications. The inoculated areas were excised twenty-four hours after inoculation, fixed in Zenker's solution and stained with haematoxylin-eosin and with methylene-blue-eosin.

Characteristic intranuclear bodies like those described by Lipschütz have been found in the brain, trachea, testicle, adrenal· liver, muco-cutaneous border of the lip and skin of the abdomen. The bodies were observed in both nerve cells and glial cells of the brain, in the ciliated epithelium of the trachea, in the interstitial cells of Leydig of the testicle, in the cortical cells of the adrenal, in the parenchymatous cells of the liver and the squamous epithelial cells of the skin. Only within cells within the lesion could these bodies be demonstrated. Herpetic virus was shown to be present in the inoculated brain, testicle and adrenal by inoculation of the rabbit's cornea.

We believe that demontstration of these characteristic intranuclear bodies within the nuclei of cells in the inoculated area is diagnostic of a take· indicating proliferation of the virus of herpes labialis locally.