13886

Attempts to Transmit Human Infectious ("Benign") Epitheliomatoses to Rabbits.

FRITZ CALLOMON. (Introduced by John A. Kolmer.)
From the Research Institute of Cutaneous Medicine, Philadelphia.

The transmission of human infectious ("benign") epitheliomatoses to animals is a problem as yet unsolved. Judging from the literature, there have been no positive results since the single experiment of Ullmann,[1,2] who succeeded in transmitting the virus of highly infectious papilloma laryngis to the mucous membrane of the genitals of a female dog and, at the same time, to the skin of his own arm.

Ullmann concluded from his experience that rodentia are not susceptible for the human virus of epitheliomatoses. Shope[3] described the infectious papillomatosis observed in wild cotton rabbits and was successful in transmitting this virus-induced neoplasm not only to cotton tails but also to domestic rabbits.

Therefore, the possible susceptibility of rodentia for human infectious epitheliomatoses again became of interest. The viruses of both animal and human papillomas and warts are epidermotropic; both neoplasms consist of epidermal cells infected with the virus.

In our experiment we tried to determine the susceptibility of rabbits for the human virus by using varying methods as well as varying sites of inoculation. The technic of Shope was included. Fresh tissue emulsions were inoculated in female rabbits of about 2 months of age, as follows:

(1) Excised finger warts of 2 juvenile female individuals, obtained through the kindness of Doctor Caroll S. Wright in Philadelphia, were ground in a small amount of saline, and 0.1 to 0.2 cc of this suspension was inoculated in 4 rabbits as follows: (a) intracutaneous injection in the ears and the shaved abdominal skin; (b) intramucous injection and (c) scarification followed by rubbing in the suspension in the mucous membrane of the genitals; (d) implantation in a superficial pocket of the genital mucous membrane of one small tissue particle.

(2) Particles of papilloma laryngis of 4 children, obtained through the kindness of Doctor Chevalier L. Jackson of the Bronchoscopic Clinic of Temple University, Philadelphia, were inoculated as a thick emulsion in 0.1 to 0.2 cc of saline in 5 rabbits; (a) by intracutaneous injection in the ears and the abdominal skin; (b) by scarification of the shaved abdomen followed by dropping on the emulsion and rubbing in with a metal spoon (Shope); (c) by intramucous injections, part in the lips and gums, part in the genitals.

The animals were examined every 7 days over an observation period of 4 to 6½ months (October 4, 1941 to April 21, 1942). Pieces of the skin and the mucous membranes, taken from the sites of inoculation, were excised for histological examination. Although all results were negative, we consider a brief report worth while in the interest of further investigation.

1 Ullmann, E. V., *Acta oto-laryngologica*, 1923, **5**, 316.

2 Ullmann, E. V., and Cornwallis, Or., *Dermatol. Wachenschrift*, 1930, **91**, 1864.

3 Shope, Richard E., *J. Exp. Med.*, 1933, **58**, 607.