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Tumor inoculation into the eye of an alien species.

By WM. H. WOGLOM, M.D.

[*From the George Crocker Special Research Fund, Columbia University, F. C. Wood, Director.*]

In recent articles Keysser[1] and his associate Hegner[2] have reported the successful inoculation of carcinomata and sarcomata from man and from the mouse into the vitreous humor of rats, an outcome which they ascribe to the absence of protective substances in the eye and to the indifferent character of its proteins. The tumors were injected in the form of a fine emulsion, the bulb being entered on its posterior aspect in order to avoid hemorrhage with the consequent entry of protective bodies from the blood stream.

Repetition of the experiment does not substantiate these claims. A few drops of a fine emulsion of Crocker Fund carcinoma No. 180 in Ringer's solution were injected under ether anesthesia into the eyes of rats, and a similar amount of the same emulsion into the eyes of normal mice to serve as controls; no hemorrhage occurred during the operation. The extreme proliferative capacity of this growth is shown by the fact that forty-nine mice out of fifty-four which survived for more than three weeks developed tumors from 0.5 to 1.5 cm. in diameter, while only five were negative. Since this approaches very closely the outcome of subcutaneous inoculation, the eye, as such, is not an unfavorable site for the growth of this neoplasm. Among eighty-three rats, however, none developed tumors, although thirty-five lived more than forty-two days after injection and eight as long as seventy-one days; hence, racial resistance protects the eye in common with the rest of the body. These findings were confirmed by microscopic examination of serial sections of the inoculated eyes.

[1] *Ztschr. f. Chemotherapie*, Originale, 1914, I, 188.

[2] *Münch. med. Wchnschr.*, 1913, LX, 2722.