

THE NATURE OF A PYOGENIC FILTERABLE AGENT IN THE WHITE RAT

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WE recently published a preliminary description (1938*a*) of an agent, encountered in a transplantable rat sarcoma, which produces abscesses in the albino rat after subcutaneous inoculation.

We referred to it as a virus because it passed a Berkefeld N filter, would not grow in either aerobic or anaerobic cultures on twelve different media, and elicited unquestionable cytoplasmic inclusions.

While a more complete article (1938*b*) was in press we received a letter from Dr Emmy Klieneberger, of the Lister Institute, who said that she had succeeded in cultivating a pleuropneumonia-like organism from some of our material which had been sent to England. She was so kind as to enclose for our approval a note which she proposed to add to a forthcoming paper (1938).

Employing her special medium of boiled blood beef-heart infusion agar, and later the more convenient beef infusion broth enriched with 10 % of horse serum, we also have been able to grow a minute pleomorphic organism which resembles hers in every respect, and which produces the typical abscess upon being returned to the rat.

Cultures which she sent us elicited lesions in the rat that were indistinguishable from those caused by extracts of our lesions, and a definite cross-immunity could be demonstrated between the two conditions. Thus there can be no doubt that the agent with which we were working is bacterial rather than viral in nature.

While our second article was in press Sabin (1938*a*) described the recovery, from mouse brains infected with *Toxoplasma*, of a filterable neurolytic agent which would not grow on any of the media tried, aerobically or anaerobically, either with or without blood or ascitic fluid. In a later account (1938*b*), which appeared after our own had been published, the agent was identified as a pleuropneumonia-like organism which could be grown in 10 % serum broth. In the absence of serum, however, all attempts failed.

Shortly thereafter Findlay *et al.* (1938) reported a similar agent in the brains of mice infected intracerebrally with a certain strain of the virus of lymphocytic choriomeningitis. Here again, while the agent would not grow on the ordinary media and showed some other resemblances to a virus, cultures on Klieneberger's special medium yielded a pleuropneumonia-like organism.

Except that it somewhat resembles the viruses, and demands a medium which is rich in serum, the organism encountered in our lesions shows no close relationship to those described by Sabin and by Findlay and his associates.

SUMMARY

Still another instance is reported where an agent resembling the viruses has ultimately proved to be an organism which can be cultivated, but only in media containing a high proportion of serum.

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