

DEMONSTRATION OF HUMAN INFECTION IN THE NATURAL FOCUS OF THE VALTICE FEVER

The virus Ťahyňa was originally isolated by Bárdoš and Danielová in 1958 from a suspension prepared from triturated females of the *Aedes caspius* mosquitoes collected in the village Ťahyňa, East Slovakia.

During the complex long-term studies on the Ťahyňa virus (Bárdoš V., Danielová V., J. Hyg. Epidem. (Praha) 3: 264—276, 1959) in the summer 1972 we carried out clinical and virological investigations in the different localities of the Valtice fever occurrence (Sluka F., Proc. Symp. at Smolenice near Bratislava 1966. Publ. House Slovak Acad. Sci. Bratislava, 311—314, 1969) in the natural focus in southern Moravia. Within the scope of these investigations a strain of the Ťahyňa virus designated as TAH 669 (Šimková A., Sluka F., Acta virol. in press) was isolated from the blood of a twenty-year-old man who had suffered from an influenza-like disease.

The examined young man, a cook by profession, was exposed to a massive attack of mosquitoes for one day, namely on September 8, when he worked in the open air. At that time an autumnal wave of mosquito occurrence had been still at its height in southern Moravia. In the following four days he suffered from a sickness manifesting itself in a splitting headache, want of appetite, general weakness and fatigue as well as the swelling of right tonsil. The symptoms of the disease became more severe each evening, mainly on the second and third day after infection. The patient did not take his body temperature during his illness. On the fifth day since the onset of symptoms he felt well, but on the sixth day when his blood was collected he collapsed, although during the

previous and subsequent blood collections he had no complaints. The test to isolate the virus was carried out from the blood collected on September 14, i.e. on the sixth day after infection. The isolation test was conducted on two-day-old suckling mice and already in the second passage in 10 % brain suspension following 3-day incubation period the virus killed all mice inoculated intracerebrally. In virus neutralizing test the newly isolated virus strain was neutralized by immune mouse anti-Ťahyňa serum (NI = 5.5) as well as the patient's serum at the stage of convalescence (NI = > 3.0). While using the collection Ťahyňa virus strain an increase of virus-neutralizing and complement fixing antibodies from negativity to demonstrable titres (0.128: < 4.8) was ascertained in the serum samples of the patient at the acute and convalescent stage of illness. In the serum samples of the patient no complement fixing antibodies were discovered against Čalovo, Dengue and Semliki antigens.

This was the case of first isolation of the Ťahyňa virus from the blood of a patient in the natural focus, with a demonstration of following antibody production manifesting the specificity as well as acuteness of infection. We assume that this isolation of the Ťahyňa virus from the patient's blood may be etiologically correlated with an influenza-like disease, described as one of the forms of the Valtice fever (Sluka F., Wiener. med. Wochschr. 119: 765—769, 1969).

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