

## ANTIBODIES AGAINST SOME ARBOVIRUSES IN PERSONS WITH VARIOUS NEUROPATHIES

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We examined patients with clinical diagnosis of tick-borne meningoencephalitis, meningopolyneuritis (MPN) or polyradiculoneuritis (PRN) for antibodies against tick-borne viruses, namely tick-borne encephalitis (TBE), Tribeč, Uukuniemi, Eyach and Tettngang. The latter was recently shown (1) to be closely related to or identical with mouse hepatitis virus (genus *Coronavirus*).

A total of 402 acute and convalescent sera (only 1 serum sample in PRN cases) from 207 patients were examined in parallel by indirect immunofluorescence (2) and complement fixation tests (3); some results were checked in the plaque-reduction test (4). The results were as follows:

Diagnosis	No. of cases	No. of patients with antibodies to			
		TBE	Tribeč	Eyach	Tettngang
TBE	158	46	6	17	4
MPN	18	0	0	2	0
PRN	29	1	1	6	1

TBE patients thus contained, in addition to TBE antibodies, also those against Tribeč, Eyach and Tettngang viruses. Taking into account the seroconversions demonstrated against Tribeč and Eyach viruses, we can conclude that, in addition to TBE virus, also the latter two viruses could have been involved as causative agents of the disease.

In MPN and PRN patients we were interested especially in elucidating the relationship of the diseases to Tettngang virus which has been incriminated as the aetiological agent of MPN, also designated as Garin-Bujadoux-Bannwarth disease (5, 6). But we found no antibody against Tettngang virus in any of the patients. It is very probable, therefore, that MPN is not caused by this virus. Antibodies found in these patients against other viruses evidently were connected with independent intercurrent infections; the antibodies occurred only occasionally and irregularly.

Antibody to Uukuniemi virus was not found in any of the patients.

## References

1. Bárdoš, V., Schwanzer, V., and Peško, J., in M. Labuda and C. H. Calisher (Eds): *Proc. Internat. Symp. New Aspects in Ecology of Arboviruses*, Inst. of Virology, Bratislava, in press.
2. Holubová, J., in M. Labuda and C. H. Calisher (Eds): *Proc. Internat. Symp. New Aspects in Ecology of Arboviruses*, Inst. of Virology, Bratislava, in press.
3. Lennette, E. H., pp. 17–52. In E. H. Lennette, N. J. Schmidt a kol.: *Laboratorní vyšetřovací metody virových a rickettsiálních nákaz*, Avicenum, Praha, 1974.
4. Marhoul, Z., in M. Labuda and C. H. Calisher (Eds): *Proc. Internat. Symp. New Aspects in Ecology of Arboviruses*, Inst. of Virology, Bratislava, in press.
5. Ackermann, R., and Hörstrup, P., in J. Rajčáni, J. Szántó and G. D. Hunter (Eds): *Internat. Symp. Chronic Virus Infections*, Veda, Bratislava, in press.
6. Rehse-Küpper, B., Danielová, V., Abar, B. and Ackermann, R., in J. Rajčáni, J. Szántó and G. D. Hunter (Eds): *Internat. Symp. Chronic Virus Infections*, Veda, Bratislava, in press.