POSSIBLE USE OF MATRIX PROTEIN OBTAINED BY CLONING IN *E. COLI* IN THE SEROLOGICAL DIAGNOSIS OF TYPE A INFLUENZA

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In a set of 105 paired sera IgG and IgM antibodies against influenza A virus M protein obtained by cloning in *E. coli* strain (Plyusnin *et al.*, 1983; Alatortseva *et al.*, 1989) were demonstrated by the ELISA method (Shekarchi and Severa, 1986). The sera were collected in the 1986/1987, 1988/1989 and 1989/1990 epidemic seasons and came from ARD patients 3 to 20 years old. The immunodiffusion test (IDT) in gel (Palmer *et al.*, 1975) for the presence of postinfection antibody to nucleoprotein (RNP), which was used in parallel to ELISA, yielded a positive precipitation line of anti A-RNP in 63 convalescent sera, 42 serum samples were negative. Demonstration of at least a two-fold rise in IgG antibody levels to M protein in the ELISA test was recorded in 31 (49.2 %) cases, a decrease in IgM antibodies was detected in 10 (15.8 %) cases only. The 42 IDT-negative serum samples gave also a negative reaction in the ELISA test. Although the IgG antibody titre to M protein was reported to depend one the severity of clinical symptomatology (Mostow *et al.*, 1975; Cretescu *et al.*, 1978), our observations seem to suggest that even light cases of the disease may induce production of positive serologic responses. Formation of the specific antibody to M protein, which is more likely a weak immunogen, can be evidently influenced by a variety of factors (course of infection, patient s age, type of virus) that have so far received relatively little attention. When considering the character of immune response one can hardly expect that the demonstration of the anti-matrix antibody alone might help elucidate the etiology of the infection. Nevertheless, this study has confirmed the high degree of sensitivity of the ELISA test as well as the possibility of conducting immune response studies with the aid of antigens obtained by the methods of gene engineering.

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