

Determination of Cellular Hypersensitivity to Listeria monocytogenes. I. SPRÁTOVÁ, C. JOHN, M. MÁRA,

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Listeria complex Ei was used for sensitization of experimental animals and for liberation of mediators of cell-mediated hypersensitivity. For evaluation of the cell-mediated hypersensitivity and immunity, method of a direct inhibition of cells of the macrophage type was employed. Groups of rabbits were sensitised with factor Ei in incomplete Freund' adjuvant (20 mg in divided doses into fore and hind foot pads). Spleens were removed 4—5 weeks after immunization. Complex Ei was added to the tissue culture medium in various amounts. The lymphocytes, present in the spleen fragments, release under the influence of antigen a number of activities; the factor inhibiting macrophage migration was chosen for our study. The degree of inhibition of migration was determined by the migration index. After addition of 100 μg of Ei/1 ml of medium, the values of inhibition indexes were found to be 0.67, 0.64, 0.67 and after 1 μg of Ei/1 ml of medium, the values were: 0.80, 0.83, and 0.85. The statistical evaluation of the results revealed that values under 0.9 represent inhibition of migration. Similar results were obtained in experiments with rabbits, sensitised with Ei complex in complete Freund's adjuvant. The effect of the Listeria factor Ei can be demonstrated even in the indirect migration test. At present, the activity of the medium is being tested, which contains MIF produced by peripheral blood lymphocytes, influenced by Ei.