

*Biochemical, Toxic and Antigenic Properties of Vectors E<sub>i</sub> Isolated from Various Serotypes of Listeria monocytogenes.* B. POTUŽNÍKOVÁ, M. MÁRA, C. JOHN, E. MENČÍKOVÁ, F. PATOČKA, I. HÁNOVÁ, Laboratory for Special Medical Microbiology, Institute of Medical Microbiology and Immunology, Faculty of Medicine, Charles University, Prague.

Listerial factor E<sub>i</sub> isolated by Patočka and Mára (1971), using a modified ether-water procedure of Ribí for the preparation of endotoxin, and analogous to the endotoxin of listeria described later (Siddique and Srivastava, 1972, 1973) was prepared from cells of six strains of the chief serotypes of *Listeria monocytogenes* (Brat 1, T<sub>2</sub>, T<sub>3</sub>, T<sub>4a</sub>, T<sub>4b</sub>, Brat 2). As was determined in aerated shaken cultures in tryptose media with glucose at 37°C ("Microferm" fermentor) the separate strains differed distinctly in their growth constants and production of factor E<sub>i</sub> related to dry weight of washed cells (4 to 29%). The absolute amounts of proteins (Lowry) and polysaccharides (orcinol) varied in the E<sub>i</sub> of each strain, their proportions, however, approximated 4 : 1 in all of them. The minimal reactive dose of the edematous-erythematous reaction in the skin of rabbits was in the range of 60 to 100 µg. The E<sub>i</sub> of various serotypes lowered the LD<sub>50</sub> of mice upon simultaneous administration of infective doses of strain Brat 1. Rabbit antisera obtained by adjuvant immunization with the various E<sub>i</sub> agglutinated fresh sheep erythrocytes sensitized with the E<sub>i</sub>. Titres of the various E<sub>i</sub> antisera differed. Immunoelectrophoresis revealed that listerial factors E<sub>i</sub> prepared from the six chief serotypes reacting with antiserum against E<sub>i</sub> of strain T<sub>3</sub> produced from 2 to 5 precipitation lines. The most significant precipitation line was present in reaction with samples of all serotypes tested.