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MENINGITIS AND MENINGIOENCEPHALITIS DUE TO LISTERIA MONOCYTOGENES

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Relevance. *Listeria Monocytogenes* is a facultative, gram-positive intracellular bacteria that is ubiquitous in the environment. Infection typically causes a self-limited gastroenteritis infection, although in some other cases it can cause meningitis, meningoencephalitis, and sepsis.

Aim: this study focused on the clinical presentation of meningitis and meningoencephalitis caused by *Listeria Monocytogenes*.

Materials and methods. A retrospective analysis of 13 patients hospitalized at Minsk City Clinical Infectious Diseases Hospital from 2020 to 2025 with a confirmed diagnosis of *Listeria* Meningitis or *Listeria* Meningoencephalitis. Laboratory confirmation was based on Polymerase Chain Reaction (PCR) testing of Cerebral Spinal Fluid (CSF).

Results and their discussion. 85% (n=11) of our cases were clinically diagnosed with *Listeria* Meningitis, while 15% (n=2) were diagnosed with *Listeria* Meningoencephalitis. 92% (n=12) of our cases were male patients, with 8% being female (n=1). Patients' ages ranged from 23 to 64, with the median age being 56 years old, and 75% of patients were 48 or older. 77% (n=10) required admission to the ICU, with an average stay of 7 days. 23% (n=3) of the patients were immunocompromised, 15% (n=2) had hepatitis, and 46% (n=6) patients were previously diagnosed with cardiovascular comorbidities. 92% (n=12) of the patients recovered and were discharged afterwards, with the only death being a patient with advanced HIV (CD4+ lymphocyte count of 0 cells/ μ l). On presentation, 61.5% (n=8) of patients had a fever of more than 37.5°C, 46% (n=6) had a headache, 15% (n=2) complained of vomiting, 30% (n=4) had an altered mental status, 69% (n=9) were positive for nuchal rigidity and 38% (n=5) complained of weakness or fatigue and 30% (n=4) of patients experienced cerebral edema. With regards to lab tests, in the Complete Blood Count (CBC), we observed that 61.5% (n=8) of patients had leukocytosis, but only 46% (n=6) had a shift to the left. The CSF showed neutrophilic predominance in 53% (n=7) of cases with lymphocytic predominance in 38% (n=5) of cases, and 7% (n=1) with no predominance of either.

Conclusions. *Listeria* Meningitis and Meningoencephalitis men are more prevalent in older patients, and in males more than females. Patients presented with nonspecific systemic symptoms and typical meningitis signs. CSF analysis varied, with both neutrophilic and lymphocytic predominance observed with comparable frequency. Most patients required intensive care but ultimately recovered with standard care.