

R681

Publication Only

Clinical ID: Community-acquired infections including CAP, sepsis, STD,...

***Listeria monocytogenes* as cause of meningitis in adults**

M.L. Fernandez¹, A. Martinez¹, H. Gomez¹, C. Suarez¹, E. Carus¹, I. Piñero¹, D. Caravia¹, J. Fernandez², **A. Rodriguez-Guardado**³

¹Internal Medicine Unit, Hospital Universitario Central de Asturias, Oviedo, Spain ; ²Microbiology Unit, Hospital Universitario Central de Asturias, Oviedo, Spain ; ³Infectious Diseases Unit, Hospital Universitario Central de Asturias, Oviedo, Spain

Background: *Listeria monocytogenes* (LM) is currently the third most frequent pathogen of bacterial meningitis in adults. The aim of this study was to describe the predisposing factors, clinical and laboratory features, treatment, complications, and outcomes for LM meningitis in adults, in a referee medical center in Spain.

Methods. A retrospective observational study of adult patients with LM meningitis in Hospital Universitario Central de Asturias, a Spanish tertiary care hospital, was carried out from 2006 to 2012. All patients had a CSF culture for LM. The identification and antimicrobial susceptibility testing was performed using commercial systems. To define the resistance breakpoints established by the CLSI were used. The presence of meningitis was defined using the CDC definition. Time to treatment was counted from the onset of meningitis symptoms to the initiation of antibiotic treatment. Mental status was scored using the Glasgow Coma Scale (GCS). Cure was considered if two successive cultures were negative and disappeared CSF clinical signs of infection . Patients were followed until death or hospital discharge. The Chi- square and Student t test were used to compare the qualitative and quantitative variables, respectively . A value of less than 0.05 was considered statistically significant.

Results. Twenty- five patients were diagnosed with LM meningitis, 68% of them male, median age 68 years (range 19-85) years. The most frequent underlying diseases was neoplasm (44%), cardiovascular disease (32%), immunosuppressor therapy (20%), liver chronic disease (16%), alcoholism (16%), previous steroid treatment (12%), diabetes (8%), Kidney chronic disease (4%). Five patients had no underlying diseases. The typical triad of fever, cefalea, and altered mental status was present in 15 patients. 20,6% had meningims Five patients had focal neurological deficits. The median count of cerebrospinal fluid (CSF) leukocytes was 720[799]/ L, protein level 374[458]. mg/L, and glucose ratio 76[67]. Blood culture was positive in fifteen patients All isolated was sensible to ampicillin, and aminoglycosides. All patients received empirical combined treatment with ampicillin, vancomycin and third generation cephalosporins. The definitive treatment included ampicillin alone (14 cases) or with aminoglycosides (11 cases). Fourteen patients (56%) died due to the infection. The mortality was higher in older patients (68[8] vs 66[20] years p=0,015) and in higher count of leukocytes (1006[[1136] vs 549[509] p=0,002], proteins (648[673] vs 210[133] p= 0,026) and glucose (77[19]vs 76[85] p=0,098) levels.

Conclusion. LM meningitis is frequent in patients with underlying disease like neoplasm and immunosuppressive treatment. The mortality is higher and more frequent in elderly patients. Ampicillin showed good clinical and bacteriological efficacy in the majority of patients.