
plasma and cerebrospinal fibronectin in meningitic children

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Because of the beneficial effects of early therapy in bacterial meningitis, and because of the costs of antibiotic therapy and its attendant hospitalization, as well as the potential medical risks of antimicrobial drugs, it would be ideal to differentiate Viral from bacterial disease at the time of initial assessment of the patient. The aim of this work is to assess the possible significance of determination of plasma and CSF fibronectin for differentiating Viral and bacterial meningitis. This study was conducted on 34 subjects with age ranged from 2 months to 14 years divided into 2 groups: group (1) included 24 meningitic children and group (2) included ten healthy children. Every child was subjected to full history taking, thorough clinical examination and the following investigations were done: complete blood picture, serum glucose, protein, chloride and plasma fibronectin determination. CSF culture and examination for glucose, protein, chloride, fibronectin level and total leucocytic count with differential cytology especially for atypical lymphocytes (ALS) and band forms. The following had been reported in this work:- CSF biochemical analysis showed that there is a highly significantly decreased glucose level and highly significantly increased protein level in patients with bacterial meningitis compared to the control group while glucose level is only slightly decreased with slight increase in protein level in patients with Viral meningitis compared to the control group.- CSF fibronectin level increased significantly in patients with bacterial meningitis while decreased significantly in patients with Viral (aseptic) meningitis, compared to the control group.- Plasma fibronectin level decreased significantly in patients with bacterial meningitis while not significantly changed in patients with Viral meningitis compared to the control group.- There was a highly significantly increased CSF leucocytic count with predominance of band form in Leishman stain in patients with bacterial meningitis compared with a slightly increased CSF leucocytic count with predominance of ALS in patients with Viral meningitis.- from the above results we can conclude that the fibronectin level in both plasma and CSF could represent a useful marker for differentiating bacterial from Viral meningitis.