interleukin-8 in plasma and cerebrospinal fluid in meningitic

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Bacterial meningitis is a serious clinical condition, and an early andreliable diagnosis is of great importance to the outcome ofthe disease.Because of the necessity of immediate therapy, the results of cerebrospinalfluid cultures cannot be a waited, and these results may even be obscuredif the patient had received antibiotic treatment before hand (Balzer et 01.,1983). The aime of this work is: To meausre IL-8 in CSF and plasma inchildren with bacterial or viral meningitis, and to determine whether theinitial CSF or plasma concentration of IL-8 correlate with clinical presentation or with outcome. The study was carried out on 50 children categottized into 5 groups. acute bacterial meningitis, acute non bacterial (presumed viral) meningitis,tuberculus meningitis, partially treated bacterial meningitis and controlgroup. In the present study CSF IL-8 level in bacterial group wassignificantly higher than that of (viral- T.B. and control group) but it was insignificantly diferent than that of partially treated bacterial group. All 4 groups significantly higher than control group. Plasma IL-8 level in bacterial group was significantly higher than that of viral-T.B.-partially treated and control group. All 4 groups significantly higher than control group. CSF cultures of 14 bacterial cases showed that 6 cases werehaemophilus influenzae, 7 cases were ofN.meningitidis and 1 case waswith sT. pneumoniae organism. In this study, the level of CSF IL-8 in patients with meningitis was higher than the level of plasma IL-8 in patients with meningitis. There was still high level of CSF IL-8 in partially treated bacterial group who received 1.V. antibiotic from (2-4) day of admission. In the present study, positive significant correlation was found between CSF IL-8 and plasma IL-8 in bacterial and viral group. The levelof IL-8 in CSF was higher than the plasma fL-8 level. Also, in the present study. There was positive significant correlation between CSF IL-8 and CSF cells in bacterial group. In the present study CSF IL-8 was correlated with the presence of coma of bad prognosis during the admission.from this study we concluded that:CSF IL-8 level is a simple test, easy, reliable and rapid for differentiation between’ bacterial and non bacterial (presumed viral) meningitis.Detection of CSF fL-8 is more likely to be due to local production rather than a reflection of increased plasma levels.Also, CSF IL-8 was very high in cases with acute clinical complication(coma), so it is beneficial in predicting the outcome.We Recommended:Further studies with larger number of samples to allow us to define acut off value reliably identifying bacterial meningitis and to explore the clinical application of these observation in the different groups of meningitis and

use it as a predictive value of prognosis.