

INTRODUCTION

Bacterial meningitis is a life threatening but potentially treatable disease, whereas viral meningitis usually subsides spontaneously.

Thus it, is of critical importance to rapidly establish the etiologic diagnosis.

Distinguishing a bacterial from a viral meningitis in the acute phase of disease may specially in children, be vexing for the clinician since the symptoms often are similar and rapid laboratory tests do not always unequivocally indicate the etiology (*Talan, et al., 1988*). Bacterial culture of CSF, which is the most reliable diagnostic tool for bacterial meningitis, require 1-2 days in the laboratory. Analysing non specific parameters, such as, cell counts, protein, lactate and glucose level in CSF and C-reactive protein in serum is often of diagnostic help in the acute phase of the disease, but none of these parameters can discriminate between bacterial and viral meningitis with 100% accuracy.

Cytokines play an important role in the pathogenesis of severe infections (*Dinarello, 1991*). A number of cell types primarily monocytes/macrophage and endothelial cells, but also neutrophils are stimulated by TNF and IL-1 to produce IL-8 (*Bazzoni et al., 1991*).

Since IL-8 levels increase during the early stage of experimental bacteremia and endotoxemia and IL-8 has a potent effect on neutrophils, this cytokine most likely participates in the inflammatory response to bacterial infections in man.