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# **Interleukin-10 and tumor necrosis factor- in cerebrospinal fluid of children with meningitis**

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-The present work was carried out on 31 patients of meningitis admitted to Shebin El Korn Fever Hospital during 1998 and 10 children presenting with convulsions served as controls. The study included 3 groups: 1) Sixteen patients diagnosed as bacterial meningitis. 2) Fifteen patients diagnosed as viral meningitis. 3) Ten children presenting with convulsions which were diagnosed after that as febrile, epileptic and drug induced convulsions served as controls. Blood samples from patients and controls • were subjected to the following laboratory investigations: 1- Estimation of total leucocytic count. 2- Estimation of differential leucocytic count. 3- Estimation of the levels of IL-10 and TNF $\alpha$ . CSF samples from patients and controls were examined for color, aspect and subjected to the following laboratory investigations: 1- Total and differential leucocytic count. 2- Protein level. 3- Glucose level. 4- Gram stained films. 5- Cultures on chocolate agar, blood agar and MacKonkey's media. 6- Estimation of IL-10 and TNF $\alpha$ .