Introduction and Aim of the work

During the past two decades, there has been considerable progress in the treatment of childhood leukemia. Most children with ALL may now be cured with current therapeutic regimens.The ability to distinguish good risk patients from those who are likely to relapse has important clinical implications. Relapse in most pediatric cases, is thought to result from residual leukemia cells that remain following achievment of "complete remission" but are below the limits of detection using conventional morphologic assesment of the bone marrow ***(Lanzowsky, 2000)***.

Study of ZAP-70 may have great usefullness for assessing the clinical efficacy of current and future treatment strategies. This is aiming to improve the cure rate in leukemia and may assume a great importance becuase long term disease free survival seems to depend on the ability to response to treatment ***(Van Dongen et al, 2006)***.

Aim of the work

The aim of work in this study is to detect the expression of Zeta associated protein **(ZAP-70**) in the cases of acute lymphoblastic leukemia **(ALL)** in children by using flowcytometry and to try to find correlation between its expression and prognosis in the form of remission and response of treatment.