CHAPTER I

INTRODUCTION AND AIM OF THE WORK

INTRODUCTION

Cancer is one of the common causes of death in childhood. Acute leukemia is the most common form of childhood malinancy. Acute lymphoblastic leukemia represent 80-85 % of all leukemia in childhood (Miller,1980).

During recent years, various reports have shown that acute leukemia is capable of altering the normal physiologic regulation of many systems, including the serum levels of most biochemicals (O'Regan et al,1977).

The growing interest in biochemical disorders induced by leukemia is mainly due to their lethal effect in patients with potential chance of remission (Mir et al,1978).

Biochemical disturbances in acute leukemia have multifactorial pathogenesis which can best be delieated according to the stage of leukemic process and the drug used (O'Regan et al,1977).

The major electrolyte and metabolic disturbances occur at the start of induction therapy are due to rapid release of intracellular metabolites (uric acid, phospate and potassium) in quantities that exceed the excretory capacity of the kidneys "Acute tumor lysis syndrome"(Cohen et al,1980).

The aim of the present work is to study the serum level of calcium, phosphate, uric acid, urea, and creatinine in children with acute lymphoblastic leukemia before, during and after induction of remission in order to detect the possible biochemical disturbances that may interrupt a steady course towards a complete remission.