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Serum Neopterin Concentrations in Childhood Hematological and Lymphoproliferative Malignancies

Thesis

Submitted for partial fulfilment of Master Degree in Pediatrics

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introduction

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Introduction

Acute leukemia is a primary malignant disease of blood forming organs characterized by predominance of immature myeloid or lymphoid precursors (blasts). **(Weinstein , 1988).**

In Egypt, **Khalifa et al., (1993)** reported a prevalence of leukemia of 56.3% among pediatric malignant diseases.

The term lymphoma embraces a heterogenous group of disorders persumed to be malignant, that originates in one or other of the lymph nodes or other lymphatic tissues of the body. **(Goldman, 1989).**

Neopterin is an intermediate product in the metabolic pathway of pteridines released in vitro from non proliferating activated cells such as macrophages stimulated with interferons.

Increased serum levels of cell mediated immune activation and in neoplastic diseases, including haemopoietic tumors. **(Kelsey et al.,1994).**

Davies et al.,1992 suggested that neopterin concentrations may be useful for assessment of tumor activity in adult haematological malignancies.

Recently, **Motyl et al., 1994** described increase in serum and urinary neopterin levels in Hodgkin and non Hodgkin lymphoma in adults.

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