



## Comparison of Growth Impairment in Pediatric Patients with ALL, NHL Treated with Chemotherapy alone and Chemoradiotherapy

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### **Introduction:**

Acute Lymphoblastic Leukemia (ALL) and Non Hodgkin's Lymphoma(NHL) are the most common cancers in childhood and adolescence. Most children with ALL and NHL have long term survival (>80%). Endocrinopathy is a common complication in pediatric cancers following the treatment (20-50% prevalence), in addition, cytotoxic chemotherapy and radiotherapy can influence side effect on growth parameters.

### **Material and Methods:**

We evaluated growth percentiles in 50 children with ALL(n=25),NHL(n=25) . Age of our patients was 3-17 years in remission period who received chemotherapy with (n=25) or without (n=25) head and neck radiation. Patients with in less than 5<sup>th</sup> percentile height referred to assess the growth hormone deficiency (GHD) by insulin stimulating test.

### **Results:**

Six (12%) Patients had less than 5<sup>th</sup> percentile height. From these patients 5 children (83.0% ) had isolated GHD. Cortisol, ACTH, Prolactin , IGF-1and IGF-BP<sub>3</sub> were at normal value children underwent head and neck radiotherapy in addition to chemotherapy. We didn't find significant difference between 2 treatment group in exact-fisher test (P= 0.189 ). Two patients (4.0%) had over weight in assessing BMI ( Body Mass Index).

### **Conclusion:**

We have some patients with short stature and GHD then it is important to pay more attention about growth in pediatric with malignancy.

**Key words:** ALL, Growth Hormone Deficiency, NHL, Radiotherapy.

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