



# A COMPARISON OF COGNITIVE STATUS BETWEEN CHILDREN WITH LEUKEMIA AND HEALTHY PEERS

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## Objectives

Cognitive functions of the children with cancer may be affected negatively, as a result of cancer therapies 'side effects. The aim of our study was to investigate cognitive status of the children with cancer during treatments and to compare with the healthy peers.

## Methods

Eight (male: 5, female:3) children with leukemia and thirteen (male: 6, female: 7) healthy peers participated in the study. The average age was  $9.00 \pm 3.62$  years in children with leukemia and  $8.46 \pm 1.19$  years in healthy peers ( $p > 0.05$ ). Children's cognitive status was assessed with the Modified Mini-Mental State Examine (MMSE). This test includes orientation, memory, attention and calculation, recalling, and language.

## Results

|             | Children with Leukemia | Healthy Peers    |
|-------------|------------------------|------------------|
| n           | 8                      | 13               |
| Age (year)  | $9.00 \pm 3.62$        | $8.46 \pm 1.19$  |
| MMSE(score) | $23.00 \pm 7.92$       | $29.92 \pm 4.66$ |

MMSE: Modified Mini-Mental State Examine

## Conclusion

During therapies children are staying in hospital for a long time, and they are receiving aggressive therapies especially Methotrexate. Because of these reasons they may have some difficulties in cognitive functions especially in orientation. Rehabilitation programs should be planned to meet the requirements of the children's cognitive influences. There is great need to investigate these influences in larger children populations.