

**The assessment of gingival changes in
children with acute lymphoblastic
leukemia before and after
chemotherapy treatment.**

- Clinical study -

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By
Ayade Khalil Al- Somaidae

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Abstract

The aim of this study was to assess the gingival changes in children with acute lymphoblastic leukemia(ALL) before and after treatment.

The samples consisted of two groups: Group I : which consisted of (15) children with ALL(the age range was 7-13 years with an average of 10 years of age). They were newly diagnosed (study group), and Group II : which consisted of (15) children (the age range was 6-11 with an average of 8.5 years of age) . They had no history of systemic diseases (control group).

Control group was examined one time. Study group was examined three times: before starting with chemotherapy (day 0), after(15) days from using chemotherapy (day 15), and after (30) days from using chemotherapy (day 30).

The examination included clinical parameters namely: gingival index(G.I), Plaque index (PL.I),assessment of gingival enlargement, collection of gingival crevicular fluid(GCF), bleeding point index, and hematological parameters namely: white blood cells count(WBC count), platelets count, and hemoglobin level in blood(Hb). **Result:** In group I (day30) there was a significant difference (decrease) occurred in G.I and bleeding point index ($P<0.05$) compared to day(0), the intimate correlation of clinical parameters (CP) in day (0) was with systemic factors, but in day (30), was with local factor (plaque),the means of (CP) except PL.I in group I day (0) were higher than in group II (but not significantly except in bleeding point index), and there was no significant differences in (CP) between group I (day 30) and group II. **Conclusion:** There was a significant improvement in gingival health status of group I in day (30) compared to day (0), the intimate correlation of (CP) in day (0) was with systemic factors but in day (30) was with local factor (plaque).