

THYROID HORMONE INDICES IN CHILDREN INFECTED WITH GIARDIASIS AND AMOEBIASIS IN KARBALA, IRAQ

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ABSTRACT

Background: *Giardia lamblia* and *Entamoeba histolytica* are important intestinal protozoa that cause public health problems in most developing countries. Both causing diarrhea with the majority of patients being children. Up to now few reports about hormonal alterations induced by *G.lamblia* and *E.histolytica* infection have been described. We study the alterations in the levels of Free Thyroxine and Free Triiodothyronine in blood of children infected with Giardiasis and Amoebiasis

Objective: To evaluate thyroid hormone indices including the free thyroxin (FT4) and free triiodothyronine (FT3) in children suffering from diarrheadue to *G.lamblia* and *E.histolytica*, and compared the results with data obtained from a sex and age matched parasite-free control group.

Design: This work was a hospital based cross-sectional descriptive study conducted in Karbala teaching hospital for children (Karbala, Iraq) during June to December, 2012. Stool specimens were collected from symptomatic 184 child, aged 6 months to 14 years attending the out patients clinics and complaining from diarrhea confirmed to be positive for *G.lamblia* and *E.histolytica* in different stages of the parasites. The free thyroxin (FT4) and free triiodo thyronine (FT3) measurement done for the diarrheal group by menividus technique and compared the results with data obtained from 27, sex and age matched parasite-free children as a control group.

Results: In this study was found significance difference in the dependent means at ($P \leq 0.05$) of the level of number Lymphocyte between children infected with protozoa(*E. histolytica* and *G. lamblia*) in compare with the normal groups and significant changes in the level of hormones Triiodothyronine (T3) and Thyroxin(T4) in blood sample from children infected with *E. histolytica* and no significant changes in the level of thyroid stimulating hormones (TSH) between children infected with protozoa(*G. lamblia* and *E. histolytica*) compare with the normal group. but there is significant changes in level of hormone in chronic stage of *G. lamblia* when compered between stage of parasite in the infected children.

KEYWORDS: *Giardia lamblia* and *Entamoeba histolytica*, Thyroxine, Triiodothyronine