HYPERTHYROXINEMIA IN HYPEREMESIS GRAVIDARUM

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SUMMARY

Twenty three patients of true hyperemesis gravidarum demonstrated a higher concentration of total thyroxin as compared to a control group of 20 normal patients in first trimester of pregnancy.

The occult throtoxicosis thus occuring may cause gastrointestinal upset manifesting as vomiting.

INTRODUCTION

Since Chini (1988) found biochemical evidence of hyperthyroidism in hyperemesis gravidarum, increase attention is being paid to evaluation of free T3 index and free T4 index in hyperemetic women.

The recent reports on the relationship between increased concentration of thyroxine hormone and hyperemesis are fascinating. The systemic exploration of the increased concentration of thyroxine in the serum of hyperemetic patients may bring forth relationship between hyperemesis and transient hyperthyroxinemia.

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MATERIAL AND METHODS

The subject of present study consisted of 43 patients divided into 2 groups, group I of 23 pregnant women in the first trimester who sought admission for hyperemesis gravidarum (study group) and group II of 20 pregnant women who were symptomless (control group). The selection of the patients was at random among patients who attended the outpatient department of admitted in the department of obstetrics and Gynaecology, Government Medical College, Jammu.

Relevant clinical history of all cases was with special attention to symptomatology of hyperemesis such as nausea, vomiting, sleeplessness, diarrhoea and epigastric pain was recorded. Emphasis was laid on history

to rule out cerebral diseases, liver diseases, gastric ulcer, food poisoning, abortificiant drugs, appendicitis, urinary tract infection and also the previous history of thyroid disease. A thorough clinical examination which included detailed general physical examination, systemic examination with emphasis on sign D and symptoms of hyperthyroidism and a complete obstetrical examination was recorded. Total throxine concentration in blood was measured by RIAK-5/5A kit.

OBSERVATION

The mean age of group I and group II were 26.21 + 2.90 and 26.10 + 3.16 respectively, which were approximately same, the age group of study and control did not differ. The mean parity of group I and group II was 0.60 + 0.07 + 0.71 respectivelty.

The mean concentration of serum total thyroxine in study group was 119.34 ng/dl as compared to mean value of 81.45 ng/dl in the control group (Table 1).

Table 1. Mean concentration of serum total thyroxine.

The mean concentration of total thyroxine of study group remained significantly higher during different weeks of gestation in Ist trimester as compared to the control group (Table II)

Table II Mean serum total thyroxine concentration with standard deviation hyperemetic and normal pregnancies at various weeks of gestation.

Table I

Mean Concentration of serum total Thyroxine

Group	Mean concentration	S.D.	t Value
Study	111.93 ng/dl	± 42.4	4.0898
Control	81.15 ng/dl	± 13.25	4.0893

P Value more than 0.001.

Table II

Mean Serum total thyroxine concentration with standard deviation in hyperemetic and normal pregnancies at various weeks of gestation.

	Hyperemesis			Normal pregnancy		
Gestation in Weeks	No. of Patients	Mean Value of T4	SD	No.of Patients	Mean Value of T4	SD
6 - 7	1	156	-	5	72.8	± 10.05
8 - 9	9	107.77	± 47.10	6	84.16	± 13.62
10 - 11	10	128.00	± 44.17	7	84.28	± 14.40
12 - 13	3	111.33	± 20.13	2	82.00	± 16.77

DISCUSSION

The peak level of HC even in normal pregnancy has inherent thyroid stimulating activity (Harada 1974). The theory of HG as thyroid stimulator is further strengthened by the studies of Motoke Kimura (1990). Total thyroid concentration in the hyperemetic pregnancies has shown an increase as compared to normal pregnancies in our study which attest the finding of Bouillon (1982) and Chin (1988). The free T4 and T3 indices have shown significant increase.

REFERENCE

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