

A STUDY OF CLINICAL PROFILE OF TYPES OF ANEMIA IN PRIMARY HYPOTHYROIDISM

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ABSTRACT

INTRODUCTION:

Hypothyroidism is a condition caused due to decreased synthesis, metabolism or decreased action of thyroid hormone which can be due to various causes. Hypothyroidism is the most common of thyroid disorders in India, affecting one in ten adults. The prevalence of hypothyroidism is 11% in India, compared with U.K & U.S.A, which is only 2% and 4-6% respectively. Despite the known fact that anemia and thyroid dysfunction often occur simultaneously, the pathophysiology remains unclear.

Only few studies have been conducted to assess the burden of anemia in hypothyroid patients

So, we planned this study to see for the pattern of anemia in hypothyroid patients and to see if there is any association between thyroid levels and hemoglobin in patients with hypothyroidism with anemia in newly diagnosed cases that present to our hospital

METHODOLOGY:

It was an observational study. It was carried out in the Department of Medicine, SDM Medical College. All hypothyroid patients attending Outpatient and Inpatient facility of SDM Hospital were enrolled for the study. The patients already diagnosed as hypothyroid >18 years in age and those who give consent for participation in the study were included.

Total 100 patients of hypothyroidism were included in the study. A detailed history was taken from all participants. All were subjected to complete hemogram including blood indices and peripheral smear, thyroid function test and retic count were done. Anti TPO antibodies if required were obtained. Data was analyzed to assess the type of anemia in hypothyroid patients and to find out any correlation between thyroid levels and anemia

RESULT:

Majority of the patients of hypothyroidism belonged to 31 to 40 years. Females are more prone to develop hypothyroidism as compared to the opposite gender. Generalized weakness and non-specific symptoms were the most commonly reported symptoms, followed by oligomenorrhea, weight gain and breathlessness.

TSH levels of our study population correlated well with hemoglobin levels and MCV values. However, no clinical symptom correlated with TSH levels.

Our findings suggest that normocytic normochromic anemia was the most common followed by microcytic hypochromic anemia followed by dimorphic and macrocytic anemia

We could establish significant correlation between TSH with HB levels. Anti -TPO antibodies were positive in hypothyroid patients

CONCLUSION:

Our findings suggest that Normocytic normochromic anemia was the most common type of anemia. Based on these results, we would recommend testing for thyroid hormone levels in anemic patients and testing for anti -TPO antibodies in hypothyroid patients.

Further studies are required to understand the pathophysiology and mechanisms involved in hypothyroidism and anemia

A multicentric randomized controlled study will help us in elucidating the role of TSH and anti -TPO antibodies in anemic patients with hypothyroidism and overall impact on the clinical outcome in these patients.

Keywords: Hypothyroidism, Anemia