

THYROXINE MONOTHERAPY
(OR)
THYROXINE AND TRI.IODOETHYRONINE COMBINATION
THERAPY IN HYPOTHYROIDISM

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ABSTRACT

Hypothyroidism is a medical condition commonly encountered in a variety of clinical settings. The clinical presentations of thyroid hormone deficiency are diverse, complicated, and often overlooked. The physical complaints are primarily related to metabolic slowing secondary to lack of thyroid hormone. The realization that hypothyroidism might be the potential etiology of an assortment of symptoms is critical in the identification and treatment of hypothyroid patients. Once hypothyroidism is diagnosed, symptoms usually respond to appropriate hormone supplementation. The study was focused on the role of thyroid hormone replacement therapy with comparing the effects of Thyroxine (T_4) Monotherapy with T_4 plus triiodothyronine (T_3) Combined Therapy in treatment of hypothyroidism.

The study design was structured review and Databases were searched through Pubmed, Medline and Science direct by using the terms hypothyroidism, thyroxine monotherapy, thyroxine plus thyronine, combination therapy, etc. Eight randomized-controlled trials that compared the effects of T_4/T_3 combination Vs. T_4 monotherapy in treatment of adult hypothyroid patients were reviewed in this study. Out of eight well-designed studies, five studies reported that forty-eight percentages of patients preferred T_4/T_3 combination therapy than T_4 monotherapy whereas other studies had not mentioned preference test in spite of insufficient evidence to recommend the use of T_4/T_3 combination therapy.

In conclusion, the combination of T_4/T_3 therapy showed improvement in terms of psychometric results and neurological function especially in hypothyroid patients associated with depression and autoimmune disease. 48% of patients preferred combination of T_4/T_3 therapy than T_4 Monotherapy as well. Therefore it is suggested that if patients experience no improvement with T_4 monotherapy, a combination of T_4/T_3 therapy should be prescribed.

Keywords: thyroid, hypothyroidism, levothyroxine, triiodothyronine, monotherapy, combined therapy
 T_3 = thyroxine, T_4 = triiodothyronine or levothyroxine