

# **Prevalence of Hyperlipidaemia in Adult Patients with Hypothyroidism: A Systematic Review**

Ihsan Nasr Eldin, MD\*

## **ABSTRACT**

Hypothyroidism was reported to raise risk factors for cardiovascular diseases, such as metabolic syndrome, diabetes mellitus, hypertension, and dyslipidemia. The aim of this review is to summarize prior studies that assessed the prevalence of hyperlipidemia in adult patients with hypothyroidism or the prevalence of hypothyroidism in adult patients with hyperlipidemia. An extensive literature search was conducted to identify observational studies with prevalence data on hyperlipidaemia among adult hypothyroid patients. The following databases were searched: PubMed and Scopus until December 11, 2024. The review was based on the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. The total number of studies identified in this review was 13, which were published between 1995 and 2024. The prevalence of hyperlipidemia among adult hypothyroidism patients ranged from 10% to 77%, while the prevalence of hypothyroidism among adult hyperlipidemia patients ranged from 3% to 90.8%. All included studies reported the outcome measure. Identifying confounders criterium was met by two studies (15.4%). The statistical adjustment criterium was met by two studies (15.4%). Funding source was disclosed by seven studies (53.8%). Hyperlipidemia and hypothyroid are prevalent comorbid diseases. Lifestyle modifications are needed as preventive measures to decrease the burden of these two conditions. Educational campaigns to the general public are required to enhance their awareness about modifiable risk factors of these conditions.

**Keywords:** Adult; Dyslipidemia; Hyperlipidaemia; Hypothyroidism; Thyroid

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\* College of Medicine  
Imam Mohammad Ibn Saud Islamic University (IMSIU), Saudi Arabia  
Email: ihsannasr@yahoo.com