

## Title

Author

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### **Abstract**

**Title:** Association of Hypothyroidism with Severity and Prognosis of Heart Failure in Dilated Cardiomyopathy Patients

### **Background:**

*Dilated cardiomyopathy (DCM) is a leading cause of heart failure (HF) and heart transplantation, with increasing prevalence globally and in India. Hypothyroidism is known to influence cardiovascular function, yet its role in exacerbating DCM remains underexplored, particularly in the Indian context. This study investigates the association between hypothyroidism and the severity of heart failure in DCM patients.*

### **Methods:**

*This cross-sectional observational study was conducted at Netaji Subhash Chandra Bose Medical College & Hospital, Jabalpur, India, from August 2022 to April 2024. A total of 140–150 patients diagnosed with DCM based on clinical and echocardiographic criteria were enrolled. Thyroid function was assessed using standard serum markers (TSH, FT3, FT4). Patients were categorized into hypothyroid and euthyroid/hyperthyroid groups, and heart failure severity was evaluated using the New York Heart Association (NYHA) classification.*

### **Results:**

*Patients with hypothyroidism exhibited a significantly higher severity of heart failure compared to euthyroid individuals. Hypothyroidism was associated with lower left ventricular ejection fraction (LVEF) and worse NYHA classification grades. The study also suggests that thyroid dysfunction may contribute to poor prognosis and increased cardiovascular morbidity in DCM patients.*

### **Conclusion:**

*The findings highlight the critical role of thyroid dysfunction, particularly hypothyroidism, in worsening heart failure in DCM patients. Routine thyroid screening in DCM cases could help identify at-risk individuals and guide potential therapeutic interventions, including thyroid hormone supplementation, to improve prognosis and survival outcomes.*

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