Association of Nonthyroidal Illness Syndrome and Adverse Outcomes in Patients with Acute Coronary Syndrome. A Meta-analysis

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INTRODUCTION

Thyroid dysfunctions are common in patients with acute coronary syndrome (ACS) but its effect on the clinical outcomes in this subset of patients are not well-studied.

AIM

To assess the association of non-thyroidal illness syndrome (NTIS) and clinical outcomes in patients with ACS by means of a meta-analysis. .

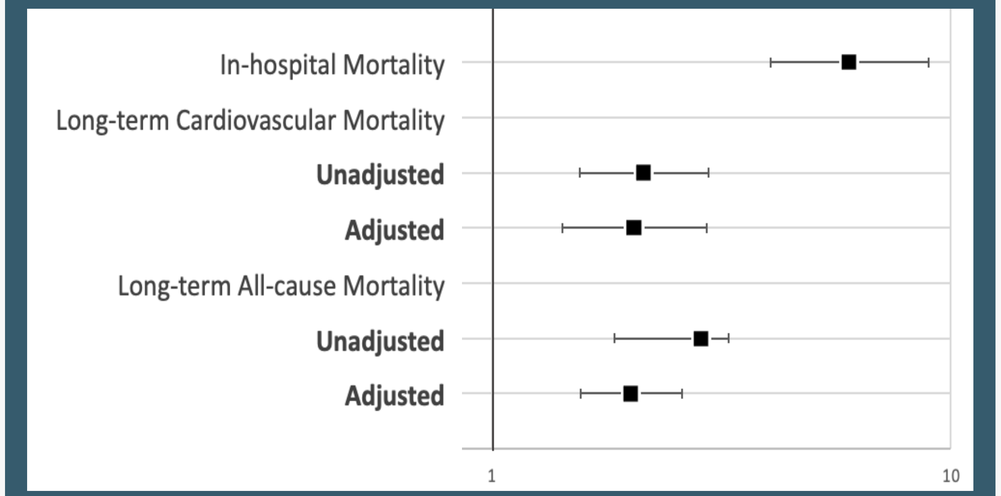
METHODS

- **Outcomes of interest:**
- In-hospital mortality
- Long-term cardiovascular mortality
- Long-term all-cause mortality

- Random-effects DerSimonian-and-Laird model
- Odds ratio (OR) with 95% confidence intervals (CI).

HIGHLIGHTS

- In patients with ACS, **NTIS** appears to associated with **adverse short and long-term all-cause mortality** and **cardiovascular mortality**.
- Results are **hypothesis generating and warrant confirmation**
- **Explore causes of cardiovascular mortality**



RESULTS

- 8 studies with 5,931 ACS patients (629 NTIS, 5,302 euthyroid patients)
- Median follow-up period was 1.7 (1.0-3.9) years
- **NTIS** vs **Euthyroid patients**
- **Unadjusted**
- **in-hospital mortality** (OR 6.01, 95% CI 4.05-8.95, p<0.001),
- **long-term cardiovascular mortality** (OR 2.14, 95% CI 1.55-2.96, p<0.001)
- **long-term all-cause mortality** (OR 2.86, 95% CI 1.85-3.28, p<0.001)
- Remained significant after sensitivity analysis via leave-one-out method
- **Adjusted**
- **long-term cardiovascular mortality** (OR 2.04, 95% CI 1.42-2.93, p<0.001)
- **long-term all-cause mortality** (OR 2.01, 95% CI 1.56-2.60, p<0.001)

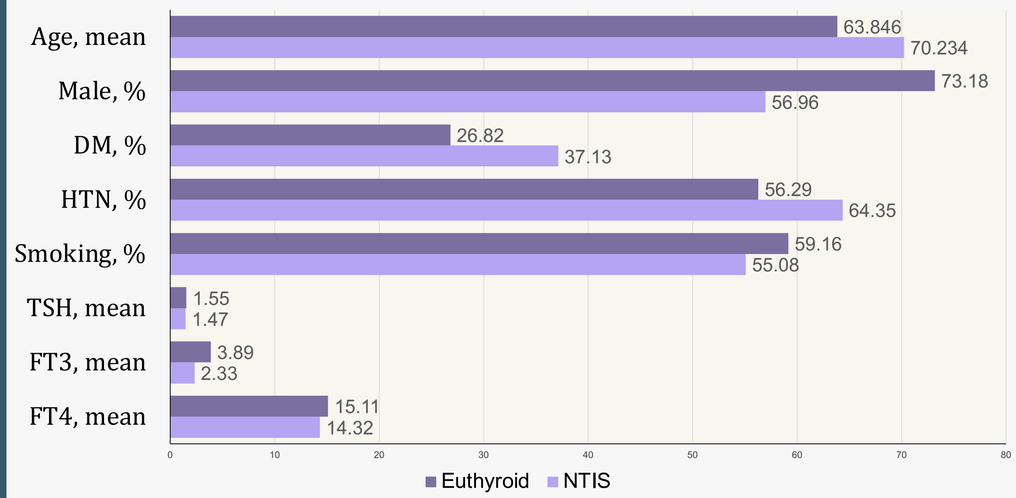


Figure: Baseline characteristics of patients and laboratory values