

[OR15-5] Subclinical Hyperthyroidism Is Associated with Increased All-Cause Mortality in Elderly Subjects

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Introduction.

Altered thyroid function, especially subclinical, represents one of the most frequent endocrine abnormality that occur in older individuals. Literature reports demonstrate that even subtle thyroid dysfunctions may be accompanied by important consequences, such as metabolic disorders, abnormality of heart function and cardiac rhythm, altered bone metabolism and cognitive disturbances. Contrasting results have been reported on the relationship between thyroid function abnormalities and mortality in older individuals. Using data from the Aging in the Chianti Area (InCHIANTI) study, an epidemiological study conducted on a population-based sample of persons living in the Chianti geographical area (Tuscany, Italy), we evaluated the relationship between thyroid dysfunction and all-cause mortality in older persons.

Materials and Methods.

Plasma concentrations of thyrotropin, free triiodothyronine, and free thyroxine were evaluated in all subject at the enrolment. Data were available for 950 participants (N.541 female and N. 409 male) aged 65 years or older. Five groups were defined according to thyroid function test as follows: overt hypothyroidism, subclinical hypothyroidism, euthyroidism, subclinical hyperthyroidism, and overt hyperthyroidism. Subjects were followed-up prospectively for all-cause mortality for 6 years. Mortality was compared between the euthyroid group and each of the thyroid dysfunction groups after adjusting data for age and sex.

Results.

Individuals with both overt hypothyroidism (N. 5, 0.52%) and overt hyperthyroidism (N. 14, 1.4%) were excluded because of small numbers. Eighty-six percent of participants (N. 819) had normal thyroid function, 3% (N. 29) had subclinical hypothyroidism, 8.7% (N. 83) had subclinical hyperthyroidism. When data were adjusted for confounders, such as Congestive heart failure, Body Mass Index, Cancer and Stroke, all-cause mortality was significantly increased in subclinically hyperthyroid subjects as compared to euthyroid subjects (H.R., 1.65 [95% C.I., 1.021-2.696], P= 0.04). No significant differences in survival curves were found between subclinically hypothyroid subjects and euthyroid subjects.

Conclusions.

In our population-based sample of older persons, subclinical hyperthyroidism, but not subclinical hypothyroidism, was associated with an increase in all-cause mortality.

Nothing to Disclose: GC, FL, MM, SB, SM, EU, GV, LF, GC

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