

Jordan University of Science and Technology

What are the benefits of treating subclinical hypothyroidism?

Authors: Kalu U, Beni Yonis O, Haris S, Na'Allah R

Abstract: What are the benefits of treating subclinical hypothyroidism? Evidence-Based Answer Although thyroxine replacement in subclinical hypothyroidism (SCH) has been shown to improve lipids, renal function, blood pressure, and diastolic function (SOR: C, based on studies with disease oriented outcomes), there is no evidence that treatment improves cognitive function, mood, or quality of life (SOR: A, based on a meta-analysis). There is evidence of an increased risk of hip fracture among men with SCH; but again, it is unknown if treatment is beneficial. (SOR: B, based on an individual cohort study.) A 2007 Cochrane systematic review of RCTs compared thyroid hormone replacement for SCH with no treatment or placebo(1). Twelve trials of 6 to 14 months? duration involving 350 patients were included. Treatment yielded no improvement in symptoms, signs, or quality of life (6 studies, N=287). Changes were seen in total cholesterol (6 studies, N=255; mean absolute decrease 9.9 mg/dL; 95% CI, 0.04?19) and ventricular ejection time (2 studies, N=79; mean absolute decrease 8.5 ms; 95% CI, 1.1?16). A 2010 double-blind, placebo-controlled RCT examined improvement of cognitive function in 94 elderly patients with SCH over 12 months(2).Subjects were randomized into a treatment arm or placebo. Fifty-two subjects received thyroxine and of these, 82% and 84% of patients achieved euthyroidism at 6 and 12 months, respectively. The main outcome measures were improvement in standardized tests for cognitive function. Cognitive functions were similar for both thyroxine and placebo groups at baseline and with treatment, both in the short term and after a substantial period while rendered euthyroid. A 2010 prospective cohort study was conducted among 3,567 community-dwelling adults (aged *This HDA updates an answer published in Evidence-Based Practice. 2006;9(5):3?4.Evidence-Based Practice / Vol. 15, No. 5 9?65 years) to determine whether SCH is a risk factor for hip fracture(3).