

THYROID AND OLD AGE

Serum TSH and FT3 tend to decrease in old age, whereas FT4 is constant since a decreased thyroxin production is counterbalanced by a slower degradation.

The rate of antibody positivity is increasing with age but antibody positivity in itself is not predictive for thyroid dysfunction at advanced age.

The prevalence of abnormal TSH values is related to iodine intake: elevated TSH is more frequent in abundant iodine intake areas whereas subnormal and suppressed TSH due to thyroid autonomy is more frequent in areas of deficient iodine intake.

The age related incidence of goitre is also iodine intake-related: decreased in iodine sufficiency (Wickham study) but clearly increased areas of deficient iodine intake.

Hyperthyroidism in the elderly is often due to thyroxine overtreatment, may be oligosymptomatic and connected to cardiac arrhythmias and osteoporosis.

Relapse rate of Graves' disease after thionamide treatment may be lower at advanced age., but ophthalmopathy may be more severe. There is a less favourable outcome following high dose pulsatile glucocorticoid treatment and radiotherapy. Cataracta is more common after retrobulbar irradiation.

Radioiodine treatment followed by thionamides are probably first choice treatment. Higher doses of radioiodine are preferable. Long term methimazole treatment may be an option in thyroid autonomy but is not safe.

Subclinical hyperthyroidism in advanced age is a risk of atrial fibrillation, osteoporosis, dementia and increased mortality, and should be treated, as generally believed.

Clinical hypothyroidism in the elderly is often atypical. At treatment there is a narrow range between substitution and suppression dose of TSH. There is no evidence of increased risk of surgery in untreated hypothyroidism.

Definition and treatment of subclinical hypothyroidism in the elderly are a question: treatment is recommended if there are symptoms or goitre and TSH is over 10 mU/l, but there is no clear effect and benefit on symptoms and hyperlipidemia at least if TSH is <10 mU/l. Overreplacement may be a risk and danger. Slightly elevated TSH may be even favourable for the hazard ratio of mortality (Leiden 85 Study)

The cancer risk in cold nodules increases with age. Anaplastic thyroid carcinoma is a disease of advanced age. Regarding differentiated thyroid carcinomas poor prognostic features are more frequent in the elderly: large tumors, Hürthle cell or follicular subtypes, extrathyroidal growth and distant metastases. Additional treatment of recurrent or metastatic disease must be tailored, and should not be denied on the basis of chronological age.

Problems of radioiodine therapy are: thyroid hormone withdrawal, side effects of 131I and nursing problems.

Lifelong suppressive thyroid hormone therapy: no important long-term side effects at old age.