Re: TSH project

From: **Fitzgerald, Stephen (Health)** | Stephen.Fitzgerald2@sa.gov.au Thursday, 21 Mar, 3:51 PM

To: **Nigel Bean** | nigel.bean@adelaide.edu.au

Dear Nigel,
have had a go.
Van Rijn- mean BMD compared among quartiles of log TSH- p=0.009, quartiles of log TSH p=0.24
prevalence of osteopenia in upper FT4 quartile p=0.027, lower TSH quartile p=0.10
Total cohort -978 normal, 420 osteopenic, 77 osteoporotic- in highest FT4 quartile respective nos.-217,121,27 p=0.004, proportions
for TSH same as total cohort p=0.87
Note I missed another analysis- FT4 levels (mean) differed according to normal,osteoporosis, osteopenia p=0.03, no difference in TSH levels across groups.
Murphy n=1278
Tosovic- the first line where p value for FT4 is 0.03 and TSH p value is 0.2 is really the crude model, the model adjusted for BMI ,age education , etc resulted in respective p values 0.02 and 0.14.(I missed this entry) T3 p value in this model =0.68. The dichotomised crude is crude , not with the qualifiers.
Khan n for TSH = n for FT4
Gussekloo - ' performance' is the heading for all the following parameters- ie ADLs, depression, memory etc cardiovascular and non cardiovascular death is sex adjusted
Xu -' metabolic syndrome components' includes BMI, waist circumference etc. I thought I would have these headings in case we wanted to group similar analyses
Itterman- US +/ ALT+ means the ultrasound and the ALT level were positive for fatty liver. US- ALT+ means the ultrasound was negative and the ALT positive. They are including the different diagnostic criteria for fatty liver. Their analysis was sex based- they state 'Since the interaction term between serum TSH concentrations and sex was significantly associated to the outcome variables; all outcomes were stratified for men and women.'
Shon- metabolic syndrome as per Xu above
Makepeace- separately analysed quintiles as per smoking status- ie never smokers/ ex-smokers/current smokers
Jun- with the tertiles there were Models crude, 1 and 2 ; I later noticed that there was a column preceding even the crude; it was headed - events n(%); p for TSH=0.078,T3 <0.001, T4 0.041
TSH and T3 use same models as FT4.
Jun also divided his cohort into high risk -greater/equal 2 metabolic risk factors, and low risk- less than 2 metabolic risk factors. The higher risk group had correlations with FT4 and T3 levels but not with TSH
They then looked at changes in TSH and thyroid hormones according to the change of metabolic risk factors. So you could have a low baseline risk that improved or worsened etc..
WHAT plus BMI- all other potential confounders plus BMI
Not stated = crude
Chaker
Even though there is an additional qualifier n did not change- I presume the new qualifier applied to no-one. There is a subtle difference between the two analyses with thyroid conditions and medications. The cohort with the lesser n also excluded those individuals on medications, for other conditions, that might affect thyroid function. This is distinct from medications whose purpose is to enhance or suppress thyroid function.

Van der Ven- These at the end of the list belong with the entry higher up. Unfortunately I repeated the entry with n=5365. That referred to the whole population. I added two more age groups <65 and 65-80. The <65 n=3547, the 65-80 is in fact 1381- I had made an arithmetical error. Do note that I have transposed a Y for N on the last 2 entries for TSH- you can see they do not now match the respective confidence limits.
Is this all? I hope so- but let me know.
regards
stephen
