

Factors associated with longitudinal plasma selenium decline in the elderly: The EVA Study.

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Josiane Arnaud, Tasnime N. Akbaraly, Isabelle Hininger, Anne-Marie Roussel, Claudine Berr. Factors associated with longitudinal plasma selenium decline in the elderly: The EVA Study.. Journal of Nutritional Biochemistry, 2007, 18 (7), pp.482-7. 10.1016/j.jnutbio.2006.09.004. inserm-00108763

HAL Id: inserm-00108763 https://inserm.hal.science/inserm-00108763

Submitted on 6 Dec 2006

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Table 1: Characteristics of the 751 subjects at baseline and the end of the study.

| | | * | Baseline | End |
|------------------------------------|----------------|---------------|-----------------|--------------------|
| Plasma Selenium, µmol/l | | Mean \pm SD | 1.10 ± 0.20 | 1.00 ± 0.18 |
| Age, years | | Mean \pm SD | 65 ± 3 | 74 ± 3 |
| Marital status | Married | n | 580 | 498 |
| | Single | n | 170 | 252 |
| Smoking | Never smokers | n | 298 | 298 |
| | Former smokers | n | 151 | 172 |
| | Smokers | n | 45 | 24 |
| Alcohol intake | g/day | Median (CI) | 0,6 (0-20;8) | ND^{**} |
| | ≤ 16 g/day | n | 525 | ${ m ND}^{**}$ |
| | >16 g/day | n | 213 | ND ** |
| Body mass index, kg/m ² | | Mean ± SD | 25.1 ± 3.6 | 24.7 ± 3.7 |
| Obesity | No | n | 682 | 523 |
| | Yes | n | 68 | 47 |
| Dyslipidemia | No | n | 399 | 257 |
| | Yes | n | 338 | 485 |
| Diabetes | No | n | 692 | 665 |
| | Yes | n | 33 | 60 |
| Hypertension | No | n | 397 | 149 |
| | Yes | n | 353 | 601 |
| Personal history of | No | n | 688 | 589 |
| cardio-vascular diseases | Yes | n | 63 | 162 |

*Results are expressed either as mean \pm SD (SD = standard deviation), or as median (CI) with CI = confidence interval, or n (number of subjects),

^{**} ND = not evaluated at the end of the study.

Table 2: Association between longitudinal plasma selenium decrease during the nine-year follow-up and risk factors measured at baseline.

Results of linear regression models adjusted on all factors listed in the table

| | | Plasma selenium decrease | | |
|-----------------------------|--|-------------------------------|-----------------|----------|
| | | $\beta^{\square\;\square\;*}$ | SD^* | p-value |
| Plasma selenium at baseline | μmol/l | 0.662 | 0.032 | < 0.0001 |
| Age at baseline | years | 0.006 | 0.002 | 0.003 |
| Sex | Women versus men | 0.014 | 0.018 | 0.41 |
| Education | ≥ high school <i>versus</i> ≤ primary school | -0.018 | 0.013 | 0.16 |
| Marital Status | Married versus Single | -0.016 | 0.016 | 0.33 |
| Smoking | Former smokers versus non smokers | 0.004 | 0.017 | 0.80 |
| | Smokers versus non smokers | -0.0003 | 0.025 | 0.98 |
| Alcohol consumption | >16 g/d <i>versus</i> ≤16 g/d | 0.021 | 0.016 | 0.18 |
| Obesity | Yes versus No | 0.037 | 0.023 | 0.10 |
| Dyslipidemia | Yes versus No | -0.018 | 0.013 | 0.16 |
| Diabetes | Yes versus No | 0.026 | 0.032 | 0.41 |
| Hypertension | Yes versus No | 0.023 | 0.013 | 0.07 |
| Personal history of | Yes versus No | 0.023 | 0.023 | 0.30 |
| cardiovascular disease | 100 1010110 | 0.025 | 3.0 <i>23</i> | 0.50 |

^{*}Results of linear regression were expressed by linear regression coefficient (β) adjusted on all factors in the table, (SD: standard deviation).

Table 3: Association between longitudinal plasma selenium decrease and changes in risk factor during the nine-year follow-up.

Results of linear regression models adjusted on all factors listed in the table

| | | Plasma selenium decrease | | |
|-----------------------------|--|--------------------------|-----------------|----------|
| | | $eta^{\Box \ \Box \ *}$ | SD^* | p-value |
| Plasma selenium at baseline | μmol/l | 0.664 | 0.041 | < 0.0001 |
| Age | years | 0.007 | 0.003 | 0.007 |
| Sex | Women versus men | 0.022 | 0.022 | 0.31 |
| Education | \geq high school <i>versus</i> \leq primary school | -0.013 | 0.016 | 0.44 |
| Marital Status | Becoming married** versus Married | -0.128 | 0.076 | 0.09 |
| | Single versus Married | -0.007 | 0.021 | 0.73 |
| | Becoming single** versus Married | 0.032 | 0.024 | 0.18 |
| Smoking | Stopped smoking** versus non-smokers | 0.035 | 0.041 | 0.38 |
| | Former smoker versus non-smokers | 0.037 | 0.022 | 0.09 |
| | Smoker versus non-smokers | 0.034 | 0.044 | 0.43 |
| Obesity | Becoming obese** versus non-obese | 0.011 | 0.054 | 0.85 |
| | Obese versus non-obese | 0.088 | 0.038 | 0.02 |
| | Becoming non obese** versus non obese | 0.061 | 0.041 | 0.14 |
| Dyslipidemia | Becoming dyslipemic** versus | -0.013 | 0.023 | 0.57 |
| | normolipemic | -0.017 | 0.019 | 0.35 |
| | Dyslipemic versus normolipemic | | | |
| Diabetes | Becoming diabetic** versus non-diabetic | 0.072 | 0.047 | 0.13 |
| | Diabetic versus non-diabetic | 0.010 | 0.043 | 0.81 |
| Hypertension | Becoming hypertensive** versus | -0.005 | 0.022 | 0.81 |
| | normotensive | 0.011 | 0.021 | 0.59 |
| | Hypertensive versus normotensive | | | |
| Cardio-vascular diseases | Past history of CVD versus no history | 0.001 | 0.045 | 0.98 |
| (CVD) | CVD event ** versus no history | 0.051 | 0.023 | 0.03 |

^{*} Results of linear regression were expressed by linear regression coefficient (β) adjusted on all factors in the table, (SD: standard deviation),

^{**} during the follow-up.