Selenium status and risk of prostate cancer in a Danish population - DTU Orbit
(14/12/2018)

Selenium status and risk of prostate cancer in a Danish population

Low-Se status may be associated with a higher risk of notably advanced prostate cancer. In a Danish population with a relatively low Se intake, we investigated the association between pre-diagnostic Se status and (1) the risk of total, advanced and high-grade prostate cancer and (2) all-cause and prostate cancer-specific mortality among men with prostate cancer. Within the Danish ‘Diet, Cancer and Health’ cohort, including 27 179 men, we identified 784 cases with incident prostate cancer through 2007. Each case was risk set-matched to one control. Two-thirds (n 525) of the cases had advanced disease at the time of diagnosis, and among these 170 had high-grade disease; 305 cases died (n 212 from prostate cancer) during follow-up through 2012. Plasma Se was not associated with total or advanced prostate cancer risk, but higher Se levels were associated with a lower risk of high-grade disease (HR 0·77; 95 % CI 0·64, 0·94; P=0·009). In survival analyses, a higher level of plasma Se was associated with a lower risk of all-cause (HR 0·92; 95 % CI 0·85, 1·00; P=0·04), but not prostate cancer-specific mortality. Higher levels of selenoprotein P were associated with a lower risk of high-grade disease (HR 0·85; 95 % CI 0·74, 0·97; P=0·01), but not with the risk of or mortality from advanced prostate cancer. In conclusion, levels of plasma Se and selenoprotein P were not associated with the risk of total and advanced prostate cancer, but higher levels of these two biomarkers were associated with a lower risk of high-grade disease.

General information
State: Published
Organisations: National Food Institute, Research group for Nano-Bio Science, Danish Cancer Society, Aarhus University
Number of pages: 9
Pages: 1669-1677
Publication date: 2016
Peer-reviewed: Yes

Publication information
Journal: British Journal of Nutrition
Volume: 115
Issue number: 9
ISSN (Print): 0007-1145
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Scopus rating (2017): CiteScore 3.65 SJR 1.756 SNIP 1.555
Web of Science (2017): Impact factor 4.586
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 3.46 SJR 2.055 SNIP 1.535
Web of Science (2016): Impact factor 4.844
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): CiteScore 3.52 SJR 1.583 SNIP 1.442
Web of Science (2015): Impact factor 4.051
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): CiteScore 3.18 SJR 1.532 SNIP 1.273
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): CiteScore 3.61 SJR 2.746 SNIP 2.479
Web of Science (2013): Impact factor 3.861
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): CiteScore 3.12 SJR 2.308 SNIP 2.427
Web of Science (2012): Impact factor 5.5