

A CASE-CONTROL STUDY ON RISK FACTORS OF BENIGN PROSTATIC HYPERPLASIA IN ALGERIAN AGING MEN.

Hypothesis / aims of study:

Benign prostatic hyperplasia (BPH) is the most common prostate disease in elderly men. A few risk factors (age, androgens and growth factors) have been established for BPH. Little research has been initiated to evaluate the relation between various risk factors (especially dietary factors) and BPH.

Study design, materials and methods:

A retrospective study was conducted in Western Algeria during 2008-2012. A total of 210 Cases, with histologically BPH confirmed, and 186 controls (free of any prostatic diseases) old over 50 years were included in this study. A validated and reproducible food frequency questionnaire was used to assess patients' dietary habits 10 years before diagnosis or hospital admission. The odds ratio (ORs) and 95 % confidence intervals (CIs) were estimated by unconditional multiple logistic regression models.

Results:

Vegetable, olive oil and green tee intakes were inversely associated with BPH (respectively OR 0.7 95% CI: 0.58-0.92, OR 0.4 95 % CI: 0.2-1.1 and OR 0.5 95 % CI: 0.3-1.4). A significant increasing risk with more frequent consumption was found for red meat (OR 2.2 95 % CI: 1.6-3.3), dairy products (OR 2.3 95 % CI: 1.2-4.6) and eggs (OR 1.54 95% IC: 1.2-1.8) whereas fruit and fish intakes showed no associations with BPH. There was no evidence that tobacco smoking and low physical activity increased the risk for BPH. Elevated free prostatic antigen specific (FPSA) levels predict BPH independent of total PSA (TPSA). Diabetes, diastolic blood pressure (or hypertension) and heart disease appeared to be related to the incidence of BPH (respectively OR 1.43 95% CI: 0.7-2.4, OR 1.2 95% CI: 0.8-1.7 and OR 2.1 95% CI: 1.3-3.5).

Interpretation of results:

A decreasing risk of BPH for high consumption of vegetables was reported by literature but inconsistent findings have been observed for fruit consumption [1]. A case-control study, conducted in Greece, revealed that dairy products, red meat and eggs were positively associated with BPH [2]. South Korean studies found no association between tobacco smoking and BPH but has demonstrated a positive association of high PSA levels with BPH [3]. Moreover, men with diabetes and hypertension are at high risk of developing BPH.

Concluding message:

Despite the non-significant positive association of few foods with BPH, the life style factors assessed in this study have no major effect on the etiology of BPH. Possible mechanisms are discussed.

Key-words: Benign prostatic hyperplasia (BPH), retrospective study, questionnaire.

References

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Disclosures

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