

Frequency of ejaculation: A factor associated with a higher risk of prostate cancer. CAPLIFE study

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Introduction & Objectives: Prostate cancer (PC) is the most common cancer in men, being the first in incidence and the third in mortality. Its etiology is unclear. The objective of this study is to evaluate the association between the frequency of ejaculation during the year prior to diagnosis and prostate cancer according to the degree of aggressiveness.

Materials & Methods: Design: A case-control study in the reference area of two university hospitals in Granada (Spain) with a design 1:1. Selection criteria: A) Cases: i) Primary diagnosis of PC; ii) Age between 40 and 80 years; and iii) Residence in the coverage area of the reference hospitals for 6 months or more; B) Controls: Same selection criteria except diagnosis of PC. Selection: i) Cases: All cases were identified using the Pathological Anatomy listings; ii) Controls: randomly from the list of family doctors. Sources of information: Personal interview and medical history. Variables: Ejaculation frequency was one main variable of exposure, it was referred to one year before diagnosis and classified into 3 categories: i) 0-3 ejaculations per month, ii) 4 to 5 ejaculations per month iii) > 5 ejaculations per month. The aggressiveness of the tumor was categorized into low aggressiveness (ISUP 1 and 2) and high aggressiveness (ISUP 3, 4 and 5). Data analysis: Crude and adjusted OR (cOR, aOR) and their 95% CI were estimated using logistic regression models (adjusted for age, tobacco, educational level, history of PC and BMI).

Results: 418 cases were recruited. Mean age for cases was 67.3 years (SD 8.3) vs 63.5 (SD 8.8), for controls ($p < 0.05$). 16.9% of cases vs. 35.7% of controls are classified in the category of highest ejaculation frequency (> 5 ejaculations per month) ($p < 0.05$). The association between belonging to the highest ejaculation frequency and the diagnosis of PC was aOR = 0.28 [95% CI 0.18–0.44], with aOR = 0.32 [95% CI 0.20–0.51] for cases with a low aggressive tumor (ISUP 1, 2), and aOR = 0.18 [95% CI 0.08–0.39] for cases with an aggressive tumor (ISUP 3, 4, 5).

Conclusions: A high frequency of ejaculation seems to be associated with a lower frequency of prostate cancer. The association for both variables was maintained after stratify by aggressiveness of the tumor.