LETTERS TO THE EDITOR

RE: "ALCOHOL CONSUMPTION, CIGARETTE SMOKING, AND RISK OF BENIGN PROSTATIC HYPERPLASIA"

We read with great interest the recent paper by Platz et al. (1), in which they reported that the risk of benign prostatic hyperplasia (BPH) was inversely related to moderate alcohol consumption and was increased in men who smoked 35 or more cigarettes per day. While the findings are interesting, we would like to raise several concerns.

First, the authors did not take into account conditions unrelated to BPH that lead to bladder dysfunction or subvesical obstruction and induce lower urinary tract symptoms similar to those associated with BPH (2–8). These include conditions such as diabetes mellitus, Parkinson’s disease, multiple sclerosis, spinal injury, lower back surgery, bladder cancer, bladder surgery, and urethral stricture. Thus, the authors could be overestimating the prevalence of BPH and introducing misclassification bias by mistakenly attributing some lower urinary tract symptoms to BPH.

Second, if some of the above conditions were also related to cigarette smoking (9, 10), this could lead to biased estimates of association. This possibility was not explored by the authors.

Finally, we are concerned about the strongly stated conclusion that the “findings suggest that moderate alcohol consumption and avoidance of smoking will reduce the risk of BPH and progression to surgery” (1, p. 114). This statement implies that a causal association exists between these exposures and BPH, an assumption that is not necessarily substantiated by the study findings. In particular, there was no information on changes in these behaviors that would allow an assessment of their impact on BPH.

Epidemiologists need to be careful about overstating the implications of observational associations. However, we urge the authors to explore the effect of changes in these behaviors on changes in severity of BPH symptoms if such information is available from the follow-up study of their cohort.

REFERENCES


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TWO OF THE AUTHORS REPLY

We appreciate the commentary provided by Drs. Roberts and Jacobsen (1) on our paper (2). We agree that our assessment of benign prostatic hyperplasia (BPH) based on lower urinary tract symptoms may have misclassified other diseases or conditions with the same urologic manifestations as BPH. However, we believe that the extent of misclassification and the resulting effect of any such misclassification is minor. In support of this contention is the fact that our estimates of the relations of alcohol consumption and cigarette smoking with lower urinary tract symptoms were similar to those for the well-classified BPH endpoint “surgery for enlarged benign prostate or BPH (e.g., transurethral resection).”

Nevertheless, to address directly the impact of the potential nondifferential and differential misclassification of BPH, we reran our analyses after excluding men who reported the following diagnoses (which may, as Roberts and Jacobsen (1) noted, have associated urologic symptoms) either at baseline (1986 or earlier) or during the course of follow-up (1987–1994): bladder cancer (n = 619 and n = 362), diabetes (n = 809 and n = 788), Parkinson’s disease (n = 62 and n = 105), and multiple sclerosis (n = 52 and n = 19), respectively. Note that men who reported a diagnosis of bladder cancer at baseline were excluded from the analysis in the published paper (2). We did not inquire about whether participants in the Health Professionals Follow-up Study had had spinal injury, lower back surgery, bladder surgery, or urethral stricture, but we would expect that the numbers would be small relative to the size of the cohort. After these exclusions, overall and specifically for what we defined in our paper as severe symptomatic BPH (see table 1), the results were essentially unchanged for the relations of alcohol intake and cigarette smoking to BPH.

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