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Editor: Deborah Sesok-Pizzini, MD, MBA, professor, Department of Clinical Pathology and Laboratory Medicine, Perelman School of Medicine, University of Pennsylvania, Philadelphia, and chief, Division of Transfusion Medicine, Children's Hospital of Philadelphia.

Alcohol consumption relative to type of breast cancer risk in postmenopausal women

Alcohol consumption is a known risk factor for breast cancer, but it is not known which subtypes of breast cancer, if any, are more likely associated with alcohol consumption. The authors conducted a large study using the Prostate, Lung, Colorectal and Ovarian Cancer Screening Trial cohort to test for heterogeneity in alcohol-related risk by breast cancer subtypes defined by estrogen receptor (ER) and progesterone receptor (PR) status and histological type. They enrolled in the trial cohort 54,562 women aged 55 to 74 years who were recruited between 1993 and 2001. The authors calculated hazard ratios and 95 percent confidence intervals for breast cancer subtypes defined by histological type and ER/PR status using standard Cox models. They also used a novel two-stage Cox model to assess heterogeneity in risk for individual tumor characteristics while adjusting for others. The authors found that alcohol consumption was not associated with all breast cancer subtypes. In terms of histological type, stronger association was noted for lobular than for ductal cancers, although this was not statistically significant. However, the risk for women consuming seven or more drinks weekly among the mixed ductal/lobular group was significantly higher compared with the corresponding risk for those with ductal cancer. Positive associations were also observed with ER+/PR+ tumors. The authors concluded that breast cancer is linked to moderate alcohol consumption, which is consistent with a large number of previous studies. Additional larger studies are needed to corroborate the findings that different cancer subtypes have different risks related to alcohol consumption.

Falk RT, Maas P, Schairer C, et al. Alcohol and risk of breast cancer in postmenopausal women: an analysis of etiological heterogeneity by multiple tumor characteristics. *Am J Epidemiol.* 2014;180(7):705–717.

Correspondence: Roni T. Falk at falkr@mail.nih.gov

Use of urinary human papillomavirus testing for detecting cervical HPV

Human papillomavirus is the most common sexually transmitted disease in the United States. The spread of the virus is associated with development of cervical cancer, which is the most common malignancy in women under the age of 35. Cervical cancer is treatable; it can be prevented with routine screening using cervical cytology. However, this method is invasive, time consuming, and requires clinician involvement. A method for detecting human papillomavirus (HPV) in the cervix is being developed, but it has limitations similar to those of cervical cytology. Detection of HPV in urine would present a more accessible, noninvasive method that is acceptable to women. It could be used in populations where pelvic examination is not practical. The authors conducted a systematic review and meta-analysis to determine the accuracy of detecting HPV in urine compared with the cervix in sexually active women. Their review showed that urine can detect cervical HPV with a good degree of accuracy. Sensitivity was moderate for detection of any type of HPV, even high-risk HPV. The authors agreed with previous reviews that showed that heterogeneous methods of urine testing affect the interpretation of pooled accuracy measures and that a uniform method for detecting HPV in urine should be developed. They concluded that their analysis may help drive the development of standardized urine HPV testing. They noted, however, that the detection of urine HPV DNA and how it compares with cytology or biopsy outcomes must be further explored to define future testing accuracy.

Pathak N, Dodds J, Zamora J, et al. Accuracy of urinary human papillomavirus testing for presence of cervical HPV: systematic review and meta-analysis. *BMJ.* doi:10.1136/bmj.g5264.

Correspondence: J. Zamora at javier.zamora@hrc.es