Letter to the Editor

Resveratrol, a new biomarker of moderate wine intake?

In a recent study published in the British Journal of Nutrition, Spencer et al. (1) reviewed the strengths and the limitations of the biomarkers of dietary polyphenol intake, since nutritional biomarkers may be a better measure of dietary exposure than self-reported dietary data. These authors identified the criteria that must be considered in the development of such biomarkers as the following: (i) robust methodology; (ii) sensitivity; (iii) specificity; (iv) bioavailability. Different polyphenols were reviewed as potential biomarkers by the authors; we suggest that resveratrol should also be considered. We analysed resveratrol metabolites as potential biomarkers of wine consumption in two randomised cross-over trials and a cohort study(2). Using a cut-off of 90 nmol/g, we were able to use urinary total resveratrol metabolite concentration to differentiate wine consumers from abstainers with a sensitivity of 72% (60–84%) and a specificity of 94% (87–100%). In these trials, urinary resveratrol was specific, as wine has been reported as the most important source of dietary resveratrol (98·4%) (3). There is a robust analytical technique(4,5) using LC-MS-MS to determine urinary resveratrol metabolites and their pharmacokinetic parameters have been recently studied by Boocock et al. (6).

Taking these points into consideration, we want to propose urinary resveratrol metabolites as a biomarker of grape product consumption; this would be a new nutritional biomarker which accomplish and fulfil the criteria of Spencer et al. (1).

We declare no conflict of interest.

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References


