Plant-based diet could improve survival among women with colorectal cancer

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Video Abstract

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Abstract

A recent study published in the British Journal of Nutrition suggests that enterolactone, an estrogen-like compound formed by the breakdown of whole grains and other plant-based foods by gut bacteria, could protect against the risk of death due to colorectal cancer—at least, for women. For men, just the opposite could be true: high concentrations of the compound might actually increase that risk. The findings, published as part of a special issue on nutrition and cancer, point to a potentially significant link between diet and survival after colorectal cancer that warrants a much closer look by researchers. The authors of the study reached those conclusions by examining data from the “Diet, Cancer and Health” study, an ongoing cohort study of older men and women in Denmark. Specifically, they compared the death outcomes of people with varying levels of enterolactone in their blood plasma, before being diagnosed with colorectal cancer. Their results showed that, among women, enterolactone concentrations were associated with lower rates of death due to colorectal cancer. In fact, a doubling of enterolactone concentration was associated with a 12% lower risk of death due to colorectal cancer. And women with the highest measured concentrations of the compound had 37% lower rate of death due to colorectal cancer compared with women with the lowest measured concentrations. For men, the relationship was reversed: a doubling in enterolactone translated to a 10% higher risk of death due to colorectal cancer. The findings agree with previous evidence linking estrogen to a lower colorectal cancer risk and mortality after diagnosis. Lignans from plant-based foods are broken down into enterolactone by gut bacteria. Due its origins and its structural similarities to estrogen, enterolactone is considered a phytoestrogen. The richest dietary sources of phytoestrogens include vegetables; seeds; legumes, especially soy; and whole grains. Narrowing down the protective effects of estrogen to its metabolite, enterolactone, could help researchers find better ways to fight against colorectal cancer through the diet.