 Unless you've been living under a rock for the last few decades, you're well aware that (1) lung cancer is by far the leading cause of cancer death in the U.S., and (2) the major cause of lung cancer is cigarette smoking. However, about 10 percent of lung cancer cases occur in non-smokers, and researchers are busy trying to figure out what other factors raise the risk for those folks.

A new study just published in Cancer Epidemiology, Biomarkers & Prevention, a journal of the American Association for Cancer Research, fails miserably. Researchers demonstrated an association between consumption of carbohydrates that tend to raise blood sugar and lung cancer, and somehow thought that this was worth publishing. Is it?

Based on dietary recall — a shaky data collection method on a good day — of 1,900 patients newly diagnosed with lung cancer, and 2,400 people who were not, the investigators assessed the possible link between consumption of foods with a high glycemic index (GI) and high glycemic load (GL) and the risk of lung cancer.

Foods with a high glycemic index contain carbohydrates which are quickly digested and absorbed, and raise blood sugar (and therefore insulin). These include foods such as white bread, potatoes, and rice. This increase can also be affected by other foods that are consumed at the same time. The glycemic load index also takes into account the total amount of the carbohydrate-containing food consumed at one time.

The investigators — senior author was Dr. Xifeng Wu from the MD Anderson Cancer Center in Houston — did a retrospective study (another flaw in drawing conclusions) asking those who had just been diagnosed about their diet, and comparing them to that of healthy participants. The researchers divided the participants' data into quintiles — five equal groups based on their GI or GL, and compared the occurrence of lung cancer in the fifth (greatest GI and GL values) versus the first quintiles of GI and GL.
Then it was time to write a junky paper, which they did splendidly.

The only link to lung cancer was the GI; there was about a 48 percent increased risk in those in the fifth as compared to the first quintile. Further, this effect was even greater in those who had never smoked (over 100 percent increased risk). The risk for a particular type of lung cancer — squamous cell — was also greater in those with a high GI, as it was for people with less than 12 years of education. They did not control for the winning percentage of the baseball team nearest to their second cousin's dentist.

The authors concluded "[t]his study suggests that dietary GI and other lung cancer risk factors may jointly and independently influence lung cancer etiology." Pretty strong stuff. Not.

Don't go on a potato and rice-free diet just yet. This study is just about worthless.

Here are a few reasons: First, it could not rule out any distortions of dietary intake due to memory, or the possibility that the lung cancer diagnosis itself affected the memory of past dietary intake. Second, retrospective studies do not prove causation — only association, and when combined with the added uncertainty of recall, this bread gets stale fast.

In the end, this is just another flawed data dredging paper — the kind we see constantly. Let's not sugar-coat things.

COPYRIGHT © 1978-2016 BY THE AMERICAN COUNCIL ON SCIENCE AND HEALTH

Source URL: https://www.acsh.org/news/2016/03/08/new-study-blames-carbs-for-lung-cancer

Links
[4] http://cebp.aacrjournals.org/content/25/3/532.abstract