Foods as Risk Factors for Colorectal Adenomas: A Case-Control Study in Burgundy (France)

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Abstract: Foods associated with precancerous colorectal adenoma, especially those associated with large adenomas, are poorly understood.

We compared food intake in polyp-free controls (n = 427) with small adenoma (n = 154) or large adenoma (n = 208) cases in Burgundy (France). Logistic regression models controlled for age, gender, and energy.

Consumption of lean meat was associated with a reduced risk of small adenomas [odds ratio (OR) for 4th vs. 1st quartile = 0.3, 95% confidence interval (CI) = 0.2-0.6] and large adenomas (OR = 0.4, 95% CI = 0.3-0.7) compared with controls.

There was an increased risk with pâtes and meat spread [OR = 2.1, 95% CI = 1.1-3.7 (small adenomas) and OR = 2.6, 95% CI = 1.5-4.4 (large adenomas)], bread [OR = 2.0, 95% CI = 1.1-3.6 (small adenomas) and OR = 2.2, 95% CI = 1.3-3.7 (large adenomas)], and pasta (OR = 1.7, 95% CI = 0.9-3.0 in small adenomas only).

Animal fats were associated with an increased risk of large adenomas compared with small adenomas (OR = 2.4, 95% CI = 1.1-5.0), whereas yogurt intake was associated with a lower risk (OR for high vs. no intake = 0.5, 95% CI = 0.3-0.9).

These findings suggest that some risk factors that have been found to be associated with cancer, such as refined cereal products and high-fat animal products, also influence early stages of colorectal carcinogenesis.