LOUISIANA COMPREHENSIVE CANCER CONTROL PROGRAM

Colorectal Cancer Incidence Rates in the Louisiana Acadian Parishes Demonstrated to be Among the Highest in the United States* Summary

Using French-speaking households as a probable indicator of Cajun descent, researchers at the Tulane Medical School and Louisiana State University Health Sciences Center (LSUHSC) have identified the Acadian region of Louisiana to have a higher rate of colorectal cancer in white males than anywhere else in the United States.

This study is the first to identify a significantly high rate of cancer in a U.S. founder population. A founder population is a new, smaller population that emerges from an established population. This subgroup will usually be prone to less genetic diversity, and if a genetic mutation is introduced into the population, the risk for an unusually high rate of disease is very high. In Newfoundland, Canada, a predisposition towards Lynch Syndrome, hereditary non-polyposis colorectal cancer, has been previously demonstrated and studied. It is thought that this Canadian population has a unique genetic predisposition to colorectal cancer, and this study has possibly identified the same in Louisiana.

By examining the 18 parishes known as the Acadian region of Louisiana, along with a smaller subgroup of nine parishes within the original 18, the study shows that in this nine-parish sub-region, white males have the highest rate of colorectal cancer in the United States. The Acadian 18-parish region also has a significantly high rate of colorectal cancer. They did not find, however, a disproportionately higher rate of malignancies that can lead to colorectal cancer, or risk factors, such as smoking or obesity, in the population. The rate of colorectal cancer in the African American population of the Acadian 18-parish group is also very high, but not significantly higher than the Louisiana or U.S. rate.

Given the incredibly high rates of colorectal cancer present in the Acadian region of Louisiana, further studies will need to be done to explore the possibility of a genetic predisposition or an as-yet unobserved risk factor or environmental exposure in the Cajun population of the Acadian region causing the high rate. Both lines of investigation are another crucial step in colorectal cancer research.

* Karlitz, J. et al. "Colorectal Cancer Incidence Rates in the Louisiana Acadian Parishes Demonstrated to be Among the Highest in the United States" Clinical and Translational Gastroenterology (2014) 5, e60; doi:10.1038/ctg.2014.10. Published online Oct. 2, 2014. * *http://www.nature.com/ctg/journal/v5/n10/full/ctg201410a.html*

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